Publications and new taxa

1. Publications

(The yellow leading digits correspond to those of the new taxa described by the author – see below:
2. Descriptions of taxa by the author (Jan. 1998- Jan. 2022)).

1994

[1] Stüben, P.E. (1994): Das *Trachyphloeus bifoveolatus-angustisetulus*-Problem und die intermediären Exemplare des Rheinlandes: Gibt es eine morphologische Lösung? (Col., Curculionidae). - Mitteilungen der AG Rheinischer Koleopterologen (Bonn) **4** (3): 111-129. – PDF –

Abstract: In the past *Trachyphloeus bifoveolatus* (BECK) and *Trachyphloeus angustisetulus* HANSEN have not been separated in Rhineland faunistics, particularly because ectoskeletal characters do not allow safe discrimination of the two sibling species ("intermediäre Exemplare"), a situation also observed in Western Europe (France). With only few exceptions it is virtually impossible to distinguish the species on the basis of the 3 characters indicated in the key: the shape of the elytra and the eyes, and the width of the ventral side of the rostrum. Similarly, morphometric analyses failed to yield significant values for separation. It was only through a study of the spermathecae, which also included material from the eastern and northem parts of Central Europa as well as from Southern France for verification, that the presence of *Trachyphloeus angustisetulus* in the Rhineland was confirmed, where it is, however, less common than *bifoveolatus.* It is, therefore, suggested to give the spermatheca priority over ectoskeletal characters as a means of identification in the key. The significance of parthenogenesis in the species and their reimmigration from their glacial refugia are commented on. Data on the distribution of the two species in the Rhineland are presented.

1996

[2] Stüben P.E. & E. Wenzel (1996a): Zur Käferfauna (Col.) eines Ton- und Sandabbaugebietes im Niederrheinischen Tiefland. Ergebnisse der Exkursionen der Arbeitsgemeinschaft Rheinischer Koleopterologen der Jahre 1995/96 in die Holter Heide bei Brüggen und drei weiteren Exkursionszielen im Naturpark Maas-Schwalm-Nette. - Mitteilungen der AG Rheinischer Koleopterologen (Bonn) **6** (3), 135-183. – PDF –

[3] Stüben P.E. & E. Wenzel (1996b): Abgebaggert - Eine Kulturlandschaft wird zur Naturlandschaft. Anmerkungen zur Käferfauna der Holter Heide bei Brüggen. - Klostermann, J. & St. Kronsbein (Hg.): Der Raum Maas-Schwalm-Nette. Landes- und naturkundliche Beiträge, 65-82, Krefeld. – PDF –

Kurzfassung: Die vergleichenden Studien über mehrere Sukzessionsstadien nach Öffnung der kleinräumigen Tagebaugruben in der Holter Heide (Grenzwald bei Brüggen) zeigen für die Käferzönosen einen deutlichen Trend zu höherer Diversität bei gleichzeitig geringer Charakterartenzahl in den anstehenden Pionierflächen. Dieses Ergebnis legt die interessante Hypothese nahe, daß in der Holter Heide auf Pionierflächen mit krautiger Vegetation Offenlandarten noch ausreichende Lebensmöglichkeiten vorfinden, während gleichzeitig Wald- und Waldrandarten die vorhandene Ressource schon nutzen.
Sollte diese Hypothese in den noch ausstehenden Untersuchungen auch für andere Invertebratengruppen sich bestätigen, hätte dies für einen Naturschutzgebiet-Managementplan nicht unerhebliche Folgen. Angesichts der bestehenden und geplanten Ton- und Sandabbau-Aktivitäten in der Holter Heide wären diese selbst ein integraler Bestandteil für eine artenreiche, dynamische und stabile Umwelt. So müßte dafür Sorge getragen werden, daß neben älteren Sukzessionsflächen in ausreichender Entfernung (ca. 100-500 m) neue Flächen für den kleinräumigen Ton- und Sandabbau bereitgestellt werden und diese nach der Auskofferung unverändert und ungenutzt erhalten bleiben. Mit solchen Mosaik-Sukzessionen der Gleichzeitigkeit (und kurzen Wege) plädieren die Autoren für ein dynamisches Verständnis stabiler Lebensgemeinschaften, in denen eine nachhaltige Sicherung der Funktionsfähigkeit des Naturhaushaltes gerade nicht bedeutet, „die Natur in Ruhe zu lassen".

1997

[4] Stüben, P.E. (1997): Rüsselkäferzönosen in aufgelassenen Ton- und Sandgruben. Anmerkungen zu Mosaik-Sukzessionen bei der Nutzung des geplanten Naturschutzgebietes Holter Heide bei Brüggen (Col. Curculionoidea), - Decheniana Beihefte (Bonn) **36**, S. 185-216. – PDF –

Abstract: Weevil species assemblages in clay and sand opencasts in the Holter Heide near Brüggen, Germany. The weevil fauna of local clay and sand opencasts in the Holter Heide near Brüggen, Lower Rhine area, Germany, is studied with special reference to different successional stages. The richest species diversity was observed in areas with low primary Vegetation. It is therefore recommended, neither to fill up nor to reforest the opencasts in order to preserve suitable habitats for numerous phytophagous insects. A complete list of the species of Curculionidoidea recorded in the Holter Heide is presented and supplemented by ecological and faunistical comments.

1998

[5] Stüben P.E. & L. Behne (1998a): Revision der *Acalles krueperi*-Gruppe mit Beschreibung der Gattung *Dichromacalles* g.n. und der Untergattung *Balcanacalles* subg. n. (Coleoptera, Curculionidae, Cryptorhynchinae). - Ent. Bl. **94**: 11-32, Jena. – PDF –

Abstract: Revision of the *Acalles krueperi* species group with description of the genus *Dichromacalles* g. n.and the subgenus *Balcanacalles* subg. n. (Curculionidae, Cryptorhynchinae). Two new species of *Dichroma-calles* g. n. from southeastern Europe and Turkey (eastern Mediterranean) - *D. boroveci* STÜBEN sp. n. and *D.nitens* STÜBEN sp. n. - are described and distinguished from other species of *Balcanacalles* subg. n. (*Acalleskrueperi*-group).

[6] Stüben P.E. & I. Wolf (1998b): Der Artstatus von *Acalles provincialis* Hoffmann aus den Meeralpen. - *NachBl. Bayer. Ent.* **48** (1/2): 36-44. – PDF –

Abstract: *Acalles provincialis* HOFFMANN from the Maritime Alps is redescribed and compared with *A. solarii* FIORI. Both species, which had previously been synonymized by TEMPÈRE & PERICART (1989), are revalidated. The systematic position of both species will be dealt with in a future revision of the species of the 1. SOLARI-group.

[7] Stüben P.E. (1998c): Die südeuropäischen Arten der Gattungen *Echinodera* Wollaston und die Gattung *Ruteria* Roudier stat.n. (Coleoptera: Curculionidae: Cryptorhynchinae) - Beitr. Ent., **48** (2), Berlin: 417-448. – PDF –

Summary: The species of *Echinodera* WOLLASTON, 1864 of southern Europe are revised. *Ruteria* ROUDIER, 1954 **stat. n.,** previously treated as a subgenus of *Echinodera,* is attributed generic Status. *Dieckmannia* **subg. n.** (type species: *Acalles brisouti* REITTER, 1885) of the genus *Echinodera* and the following 6 species and subspecies are described: *Echinodera romanboroveci* **sp. n.** (Montenegro), *E. behnei* **sp. n.** (Makedonia), *E. pseudovariegata* **sp. n.** (Crete, Rhodes), *E. ingowolfi* **sp. n.** (Greece: Astakos), *E. roudieri* **sp. n.** (Spain: Alicante), *E. brisouti peneckei* **ssp. n.** (Dalmatia). Nine species are redescribed: *Echinodera variegata* (BOHEMAN, 1837), *E. horridula* (REITTER, 1888), *E. major* (A. & F. SOLARI, 1907), *E. capiomonti* (BRISOUT, 1864), *E. brisouti* (REITTER, 1885), *E. valida* (HAMPE, 1864), *E. peragalloi* (CCHEVROLAT, 1863), *E. merkli* (MEYER, 1896), *E. ochsi* (F. SOLARI, 1952). Lectotypes are designated for *Acalles horridula* REITTER, 1888, *Acalles brisouti* REITTER, 1885 und *Acalles merkli* MEYER, 1896.

[8] Stüben P.E. (1998d): *Darf man Insekten zeichnen, wie man will?* Peter E. Stüben im Gespräch mit dem Künstler Klaus Fabian anläßlich der 70-Jahrfeier der AG Rheinischer Koleopterologen. - Mitteilungen der AG Rheinischer Koleopterologen (Bonn), **8** (1): 25-31. – PDF –

[9] Stüben P.E. (1998e): Eine neue *Echinodera*-Art (Coleoptera: Curculionidae) aus dem kirgisischen Tien Shan. - Stuttgarter Beitr. Naturk., Ser. A, Nr. **570**, 5 S., Stuttgart. – PDF –

Summary: *Echinodera schawalleri* n.sp. from Kirghizia is described and separated from *Echinodera paulmeyeri* (Reitter 1901) from the adjacent Tadzhikistan.

1999

[10] Stüben P.E. (1999): Taxonomie und Phylogenie der westpaläarktischen Arten der Gattung *Kyklioacalles* g.n. (Coleoptera, Curculionidae: Cryptorhynchinae) - Stuttgarter Beitr. Naturk., Ser. A, Nr. **584**, 38 S., Stuttgart. – PDF –

Summary: A new curculionid genus *Kyklioacalles* g.n. (type species: *Acalles solarii* Fiori, 1903) is diagnosed. 13 species, ascribed to this new genus, are redescribed, and for the following five species lectotypes are designated: *K. punctaticollis* (Lucas, 1849), *K. punctaticollis* ssp. *meteoricus* (Meyer, 1909), *K. teter* (Boheman, 1844), *K. fissicollis* (Penecke, 1926), *K. reynosae* (Brisout, 1867). The male genitalia of the revised taxa are illustrated and SEM figures of the structure in the internal sac are presented. Diagnostic keys allow Separation of genera (*Acalles, Dichromacalles, Ruteria/Echinodera* and *Kyklioacalles*) and identification of species of *Kyklioacalles* g.n. A phylogenetic System is proposed for the species of the new genus.

[11] Stüben P.E. (1999): Die westpaläarktischen Arten der Gattung *Onyxacalles* g. n. (Coleoptera: Curculionidae, Cryptorhynchinae), in: Ent. Bl., **95**: 175-203, Jena. – PDF –

Abstract: The species of the new genus *Onyxacalles* **n. gen.** (type species: *Acalles lugionii* SOLARI, 1907) are presented. Two

species are described: *Onyxacalles neglectus* KULBE **n. sp.** and *Onyxacalles ringeli* KULBE **n. sp..** Six species are redescribed and for the following two species lectotypes are designated: *Onyxacalles henoni* (BEDEL, 1888) and *Onyxacalles verrucosus* (WOLLLASTON, 1863). Two new synonyms are fixed: *Acalles croaticus stoeckleini,* FRIESER 1959 **syn. nov.** (= *Acalles croaticus* BRISOUT, 1867) and *A. pyrenaeus* var. *germanicus* LETZNER 1882 **syn. nov.** (= *Acalles pyrenaeus* BOHMAN 1844). The male genitalia of the revised taxa are illustrated. Diagnostic keys allowing Separation of genera (*Acalles, Dichromacalles, Kyklioacalles, Ruteria/Echinodera* and *Onyxacalles*) and identification of species of *Onyxacalles* n. gen. are offered.

[12] **Stüben P.E. (1999):** Eine neue *Echinodera*-Art aus der Süd-Türkei (Col., Curculionidae, Cryptorhynchinae) - Mitt. Münch. Ent. Ges. **89**: 83-85, München. – PDF –

Abstract: *Echinodera bayeri* sp. n. from the south of Turkey is described and distinguished from other species of the genus *Echinodera* s. str.

[13] **Stüben P.E. (1999):** Eine neue *Acalles*-Art von der iberischen Halbinsel (Coleoptera: Curculionidae: Cryptorhynchinae). - Mitt. Münch. Ent. Ges. **89**: 77-82, München. – PDF –

Abstract: *Acalles sintraniensis* sp.n. from northwest of the Iberian peninsula is described and distinguished from other species of the genus *Acalles* s. str. *A. papei* var. / ssp. *balcanicus* *A.* & F. SOLARI, 1905 is a synonym of *A. papei A.* & F. SOLARI, 1905.

2000

(Since 2000, mainly high-quality, interactive articles in HTML format)

[14] **Stüben, P.E. (2000):** Editorial and Imprint: *Snudebiller* CD ROM – the use of the BOOKREADER program. - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **1**, Mönchengladbach: CURCULIO-Institute, 1-6. – PDF - https://www.curci.de/?editorial=1&lang=en

[15] **Stüben, P.E. (2000, Ed.):** Die Cryptorhynchinae der Kanarischen Inseln. Systematik, Faunistik, Ökologie und Biologie. in: - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **1**, mit 910 Farbfotos, 266 REM-Aufnahmen, 118 Verbreitungskarten, 18 Ton- u. 1 Video-Aufnahme, 1. Edition, CURCULIO-Institute, D-Mönchengladbach: 413 pp.

[16] **Stüben, P.E. (2000):** Einleitung: Geschichte der Cryptorhynchinae Forschung auf den Kanaren, Untersuchungs- und Sammelmethoden (Coleoptera: Curculionidae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **1**(1): 7-18, Mönchengladbach. – HTML –
(see: http://www.curci.de/?beitrag=1)

Abstract: Introduction: A brief history of research of Cryptorhynchinae in the Canary Islands. Methods of examination and collecting of the 'Study group of *Acalles*' are described. Activity fluctuations of two *Acalles* species from Tenerife are presented.

[17] **Stüben, P.E. (2000):** Gattungschlüssel der kanarischen Cryptorhynchinae / Clave de géneros de los Cryptorhynchinae canarios (Coleoptera: Curculionidae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **1**(2): 19-21, Mönchengladbach. – HTML –
(see: http://www.curci.de/?beitrag=2)

Abstract: Key to the genera of Cryptorhynchinae from the Canarian Islands.

[18] **Stüben, P.E. (2000):** Die Arten des Genus *Acalles* von den Kanarischen Inseln (Curculionidae: Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **1**(3): 22-98, Mönchengladbach. – HTML –
(see: http://www.curci.de/?beitrag=3)

Abstract: The species of the genus *Acalles* Schönherr, 1826 of the Canary Islands are revised and, in view of a

planned comprehensive revision of the Cryptorhynchinae of the Atlantic Islands, referred to preliminary species group.The following 14 taxa are new described: *Acalles pedestris* Stüben **sp.n.,** *Acalles hakani tagasaste* Stüben **ssp.n.,** *Acalles lanzarotensis* Stüben **sp.n.,** *Acalles bodegensis* Stüben **sp.n.,** *Acalles aeonisimilis* Stüben **sp.n.,** *Acalles grancanariensis* Stüben **sp.n**., *Acalles sonchi* Stüben **sp.n.,** *Acalles silosensis* Stüben **sp.n.,** *Acalles muelleri* Stüben **sp.n.,** *Acalles cedroensis* Kulbe **sp.n.,** *Acalles lepidus* Kulbe **sp.n.,** *Acalles poneli* Stüben **sp.n.,** *Acalles euphorbiacus* Stüben **sp. n.,** *Acalles anagaensis* Stüben **sp.n..** 16 species are redescribed, and lectotypes are designated for the following 13 taxa: *Acalles xerampelinus* Wollaston 1864, *Acalles aeonii* Wollaston 1864, *Acalles argillosus* Boheman 1837, *Acalles nubilosus* Wollaston 1864, *Acalles instabilis* Wollaston 1864, *Acalles instabilis* var. *mundus* Wollaston 1864, *Acalles sigma* Wollaston 1864, *Acalles fortunatus* Wollaston 1864, *Acalles acutus* Wollaston 1864, *Acalles brevitarsis* Wollaston 1864, *Acalles pilula* Wollaston 1864, *Acalles pilula* var. *seminulum* Wollaston 1864, *Acalles globulipennis* Wollaston 1854. Two taxa are synonymized: *Acalles haraldi* Roudier 1954 **syn. n.** (= *Acalles alluaudi* Uyttenboogaart 1940) and *A. pilula* var. ♂ *seminulum* Wollaston 1864 **syn. n.** (= *Acalles globulipennis* Wollaston 1954). Significant external characters and the male and female genitalia of all species as well as the habitats, larvae, and pupae of selected species are illustrated in 478 colour, 153 SEM photographs and 14 audio sequences. A key to the Canarian species of the genus is provided both in German and in Spanish.

[19] **Stüben, P.E. (2000):** Die Arten des Genus *Echinodera* von den Kanarischen Inseln (Curculionidae: Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **1**(7): 137-159, Mönchengladbach. – HTML –
(see: http://www.curci.de/?beitrag=7)

Abstract: The species of the genus *Echinodera* Wollaston, 1864 of the Canary Islands are revised. Following 5 species are described: *Echinodera tenoensis* Stüben **sp.n.,** *Echinodera benahoarita* Stüben **sp. n.,** *Echinodera gomerensis* Stüben **sp. n.,** *Echinodera palmaensis* Stüben **sp. n.,** *Echinodera pseudohystrix* Stüben **sp. n.** 7 species are redescribed (*Echinodera compacta* Wollaston 1864, *Echinodera picta* Wollaston 1864, *Echinodera personata* Colonnelli 1985) and for 4 species are Lectotypes designated: *Echinodera angulipennis* Wollaston 1864, *Echinodera orbiculata* Wollaston 1864, *Echinodera crenata* Wollaston 1863, *Echinodera hystrix* Wollaston 1864. Significant external characters and the male genitalia of all species are illustrated in more than 160 colour and 15 SEM photographs. A key to the Canarian species of the genus is provided both in German and in Spanish.

[20] **Stüben, P.E. (2000):** Die Arten des Genus *Dichromacalles* von den Kanarischen Inseln (Curculionidae: Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **1**(4): 99-105, Mönchengladbach. – HTML –
(see: http://www.curci.de/?beitrag=4)

Abstract: The species of the genus *Dichromacalles* Stüben, 1998 of the Canary Islands are revised. Following 2 species are redescribed: *Dichromacalles fernandezi* (Roudier 1954) **comb. nov.** und *Dichromacalles dromedarius* (Boheman 1844). Significant external characters and the male and female genitalia of all species are illustrated in 40 colour, 13 SEM photographs and 1 audio sequence. A key to the Canarian species of the genus *Dichromacalles* is provided both in German and in Spanish.

[21] **Stüben, P.E. (2000):** Die Arten des Genus *Onyxacalles* von den Kanarischen Inseln (Curculionidae: Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **1**(5): 106-113, Mönchengladbach. – HTML –
(see: http://www.curci.de/?beitrag=5)

Abstract: The species of the genus *Onyxacalles* Stüben, 1999 of the Canary Islands are revised. Following 3 species are redescribed: *Onyxacalles verrucosus* (Wollaston 1863), *Onyxacalles neglectus* Kulbe 1999, *Onyxacalles ringeli* Kulbe 1999. Significant external characters and the male and female genitalia of all species are illustrated in 38 colour, 9 SEM photographs and 2 audio sequences. A key to the Canarian species of the genus *Onyxacalles* is provided in German and in Spanish.

[22] **Stüben, P.E. (2000):** Die Arten des Genus *Torneuma* und des Genus *Paratorneuma* von den Kanarischen Inseln. (Curculionidae: Cryptorhynchinae) . - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **1**(8): 160-169, Mönchengladbach. – HTML –
(see: http://www.curci.de/?beitrag=8)

Abstract: The species of the genus *Paratorneuma* Roudier, 1956 and of the genus *Torneuma* Wollaston, 1860 of the Canary Islands are revised. Following 6 species are redescribed: *Paratorneuma orbatum* (Wollaston 1865), *Paratorneuma franzi* González 1971, *Paratorneuma lindrothi* Franz 1981, *Torneuma viti* Osella 1984, *Torneuma canariense* Osella 1984, *Torneuma solarii* Osella 1984. The lectotype of *Torneuma orbatum* Wollaston 1865 is designated. Significant external characters and the male genitalia of all species are illustrated in 40 colour photographs. A key to the Canarian species is provided both in German and in Spanish.

[23] **Stüben, P.E. (2000):** Biogeographie und Evolution der kanarischen Cryptorhynchinae (Curculionidae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea*

1(12): 293-306, Mönchengladbach. – HTML –
(see: http://www.curci.de/?beitrag=12)

Abstract: Concerning the biogeography and evolution of the Canarian *Cryptorhynchinae*, the concept of the "island effect" (distance to the continent, size of the island, …), everybody is talking about, is replaced by the concept of "habitat diversity". Habitat diversity is here an important pre-condition for species-richness and for the high proportion of endemic species (97 per cent). In *Acalles*, species-richness is due to structural diversity (plant architecture) and to the radiation of the host plants, but in *Echinodera* with many species clearly divided by altitude zones, the very different climatic conditions of theses zones are responsible for development and niche differentiation of these species. By means of intra-insular comparison, striking convergences could be shown. A survey over the direction of colonization, the center of endemism (Tenerife) and possible stepping-stone islands is given. The following thesis is advocated: The colonization rsp. development of the *Acalles* species began in the more arid habitats of the succulent bush and was followed by entering the shady and humid laurel forest of the thermocanarian zone much later. This is not correct for *Echinodera* and *Onyxacalles* species, typical forest inhabiting species, having reached the islands at a later time. The evolution of the host plants is going ahead the development of phytophagous beetles, as could be shown for the *aeonii-Acalles* species group, developing on Crassulaceae (adaptive radiation and parallel cladogenesis). With 15 illustrations / diagrams and one table.

[24] **Stüben, P.E. (2000):** Phylogenie der endemischen Taxa des Genus *Acalles* von den Kanarischen Inseln (Curculionidae: Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **1**(11): 287-292, Mönchengladbach. – HTML –
(see: http://www.curci.de/?beitrag=11)

Abstract: A phylogentic recostruction is suggested for 11 of the 29 endemic *Acalles* species of the Canary Islands; for the 5 species of the *Acalles aeonii* group, an intrageneric classification is presented. The 11 selected taxa represent species groups, based on morphological characteristics. Together, they form a monophylum. Obviously, the typical forest species of the Laurisilva are evolved from species inhabiting the more arid succulent bush and the thermophilous bush forest **below** the thermocanarian laurel forest zone. Concerning the taxa of the *Acalles euphorbiacus* group, it is assumed, that these species have been derived from forest areas and colonized the succulent bush again. On their way they had to overcome high obstacles: the insecticidal components of the Euphorbiaceae. With 2 diagramms and 2 tables.

[25] **Stüben, P.E. (2000):** Isoliertes Vorkommen einer *Acalles micros*-Population in einem Buchenwald des Niederbergischen Landes (Curculionidae: Cryptorhynchinae). in: WEEVIL NEWS: www.curci.de, No. **3**: 9pp., CURCULIO-Institut: Mönchengladbach. – HTML –
(see: http://www.curci.de/?beitrag=77)

Abstract: Records of an isolated population of the weevil species *Acalles micros* in a beech forest of the region "Niederbergisches Land" (Germany, Nordrhein-Westfalen, district of Mettmann: "Vogelsangbachtal") are documented here. The thermophilous species, mainly known from the northern Mediterranean region, is also present 300 km north of the forest of Taben-Rodt (Rheinland-Pfalz), previously the most northern place where *Acalles micros* is found. A key for the closely related species *Acalles micros, Acalles lemur* and *Acalles commutatus* is presented, and all data on the western palaearctic distribution of *Acalles micros* are given. The presence of the species in NRW, near to the river Rhein, is suggested as a very isolated relic of a warm climatic (post-glacial) period and of fluviatile origin. The biotope of this beech forest-dwelling species is diminished in historical times by clearing of large areas.

[26] **Stüben, P.E. & F. Bahr & Ch. Bayer (2000):** Cryptorhynchinae-Exkursion in die Ost- und Zentralpyrenäen (Col.: Cryptorhynchinae). in: WEEVIL NEWS: www.curci.de, No.**1**: 10pp., CURCULIO-Institut: Mönchengladbach. – HTML –
(see: http://www.curci.de/?beitrag=76)

Abstract: A report of a study trip to the Eastern and Central Pyrenees which has been undertaken by members of the "Study Group of Acalles" (CURCULIO-Institute) in October 1999 is given. In the course of this journey 14 species of Cryptorhynchinae (Coleoptera: Curculionoidea) from the Pyrenees and one more species from the vicinity of Barcelone have been proved to be part of the living fauna of this region. 1051 specimens have been collected. Localities, circumstances and methods of collecting are presented. Finally the remarkable species of the Eastern and Central Pyrenees are diskussed.

[27] **Sprick, P. & Stüben, P.E. (2000):** Ökologie der kanarischen Cryptorhynchinae außerhalb des Laurisilva (Col.: Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **1**(14): 318-341, Mönchengladbach. – HTML –
(see: http://www.curci.de/?beitrag=14)

Abstract: Ecology of the Canarian Cryptorhynchinae from habitats outside of the Laurisilva (Col., Curculionidae). Contributions to the ecology of phytophagous beetles IV. - Cryptorhynchinae Study 11. In habitats outside of the Canarian Laurisilva the

Cryptorhynchinae genera *Acalles, Dichromacalles* and *Echinodera* can be found. *Acalles* species develop on Crassulaceae (*Aeonium*), Asteraceae (*Kleinia, Sonchus*, *Tolpis*), Apiaceae (*Foeniculum, Ferula*), Euphorbiaceae (*Euphorbia*) and Fabaceae (*Chamaecytisus*). They live only on big plants with succulent leaves, big rosettes on the bottom, wide stems, stem cavities or a crevice-rich bark. Important plant communities inhabited by *Acalles* species are the Macaronesian vegetation of rock crevices of volcanic origin (Greenovio-Aeonietea) and the succulent bush of the infra- and thermocanarian zone (Kleinio-Euphorbietea); also fallow land (Chenopodienea muralis) or cultivation areas with *Foeniculum vulgare* (stronger plants) and plant communities of shrubs replacing the Laurisilva (Andryalo-Ericetalia), mainly with old *Chamaecytisus proliferus* and also cultivations with old specimens, are important habitats. The interaction with their host plants is determined by plant morphology, their need of humidity, and also by toxic plant metabolites. Special avoidance mechanisms are necessary to develop on plants with poisonous rsp. sticky latex, as in *Euphorbia, Sonchus* or *Tolpis* or on plants with toxic pyrrolizidine alcaloids, as in *Kleinia*. No such adaptations were found in Crassulaceae (*Aeonium*) or Apiaceae (*Foeniculum, Ferula*). Because of this lack, the numerous classes of plant metabolites in *Foeniculum vulgare* rsp. *Ferula* spp., one of the *Acalles* species or its ancestors, living on these plants, should represent the starting point of plant colonization on the Canary Islands. The *Acalles* species of *Euphorbia* belong to another way of colonization than the species from *Aeonium, Sonchus, Tolpis,* Apiaceae and *Kleinia*, because they are closely related to Laurisilva species. - To avoid the loss of water in their extremely dry and warm habitats, the species show a strong night-acitivity, hide in the inner parts of their host plants during the day, develop only in big plants, and show a body size that is larger than the size of forest-inhabiting species. *Echinodera* species are mainly found in dry litter of woody or herbaceous plant material, and they are strongly divided into groups living on different islands and in different altitude zones (with one exception). The *Dichromacalles* species are polyphagous and develop in living plant material of Apiaceae, Asteraceae, and Crassulaceae. *D. dromedarius* is introduced into the Canaries since less than 40 years.

[28] **Riede, K. & Stüben, P.E. (2000):** *Die musikalischen Acallen*: Beobachtungen zur Stridulation bei den Cryptorhynchinae von den Kanaren. - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **1**(13): 307-317, Mönchengladbach. – HTML –
(see: http://www.curci.de/?beitrag=13)

Abstract: This study describes songs, morphology of the stridulatory apparatus and mechanisms of sound production for 12 species of the weevil genera *Acalles*, *Dichromacalles* and *Onyxacalles* (Curculionidae: Cryptorhynchinae) from the Canary Islands. SEM studies reveal a pronounced stridulatory sector consisting of 30-40 parallel ridges and a subreticulated portion at the inner surface of both the elytra. Cuticular emergences on the 8th abdominal tergit function as plectrum. Video-sequences clearly reveal movements of the plectrum against the elytral stridulatory sector, illustrating the mechanism already proposed by Wollaston [Wollaston 1860a]. These movements generate a rattling noise of species-specific intensity. A thorough acoustic analysis reveals a broad frequency spectrum between 1,5 and 12 kHz for all species, with a species-specific lower limit, shifted towards deeper frequencies for species with powerful stridulation. Songs consist of elements [Lautelemente] between 10 and 50 ms duration, separated by longer pauses between 30 and 200 ms. Elements consist of needle-shaped pulses of only 0.2 ms duration, which generate the broad frequency spectrum [Fig. 9]. Duration of elements and pauses are species-specific, in spite of considerable variation. Elements and pauses are shortest for *Acalles lepidus* (15 and 36 ms, respectively), while *Acalles muelleri* with 30 and 180 ms, and *Acalles sonchi* with 37 and 60 ms exhibit the highest values. In addition, these two species show the loudest stridulation, while sounds produced by species such as *Onyxacalles ringeli* can barely be heard. Stridulation is elicited by touch, and therefore is probably a defense reaction.

[29] **Bayer, Chr. & Stüben, P.E. (2000):** Vergleichende Untersuchungen an Larven aus der *Acalles*-Verwandtschaft (Col.: Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **1**(9): 170-181, Mönchengladbach. – HTML –
(see: http://www.curci.de/?beitrag=9)

Abstract: The immature stages of several species of Cryptorhynchinae of the Canary Islands are described. The larval stages of the genus *Dichromacalles* and of some species of the genus *Acalles* are reported and described for the first time. 41 photographs taken by Scanning Electron Microscope (SEM) are presented for most of the immature stages which have been studied. The setal indices of different genera of Cryptorhynchinae are examined comparatively. For a number of species of the genus *Acalles* the first comparative study of the setal index of the larval head capsule has been carried out. The extreme reduction of the immature stages due to evolutionary host plant interaction as well as the conditions of larval development is discussed. The effects on larval taxonomy are demonstrated exemplarily.

2001

[30] **Stüben, P.E. (2001):** Beschreibung neuer westpaläarktischer *Echinodera*-Arten aus Marokko. Mit einem neuen Schlüssel der Arten des Genus *Echinodera*. (Curculionidae: Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **2**(24): 162-179. – HTML –
(see: http://www.curci.de/?beitrag=24)

Abstract: *Echinodera casablancaensis* sp.n. (Atlantic coast), *Echinodera atlasensis* sp.n. (Atlas Mts.), *Echinodera rifensis* sp. n. (Rif Mts.) and *Echinodera suber* sp.n. (Sebta) from Morocco are described and distinguished from other species of the genus.

Lectotypes are designated for *Acalles variegatus* Boheman 1837 (*Echinodera variegata*), *Acalles costatus* Chevrolat 1861 (*Echinodera costata* comb.n.), *Acalles fuscus* Chevrolat 1861 (*Echinodera fusca* comb.n.) and *Acalles globulus* Meyer 1896 (*Echinodera globula* comb.n.). Relevant external characters and the male genitalia of all discussed taxa are illustrated. A new diagnostic key allows the identification of all species of *Echinodera* Wollaston 1863 (Type species: *Echinodera crenata* Wollaston 1863).

[31] **Stüben, P.E. (2001):** Beschreibung neuer westpaläarktischer *Acalles*-Arten. (Curculionidae: Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **2**(25): 180-197. – HTML –
(see: http://www.curci.de/?beitrag=25)

Abstract: *Acalles maroccensis* sp.n. (Morocco: Antiatlas), *Acalles almeriaensis* sp.n. (Spain: Andalusia), *Acalles gadorensis* sp.n. (Spain: Sierra de Gador), *Acalles bazaensis* (Spain: Sierra de Baza), *Acalles maraoensis* sp.n. (Northern Portugal) and *Acalles sardiniaensis sp.n.* (Italy: Sardinia) are described and distinguished from other species of the genus *Acalles*. A neotypus is designated for *Acalles lemur* Germar 1824, *Acalles incognitus* Hoffmann 1956 is moved to the genus *Echinodera* (*Echinodera incognita* (Hoffmann 1956)) and a lectotypus is designated for *Acalles sierrae* H. Brisout de Barneville 1865. Relevant external characters and the male genitalia of all discussed taxa are illustrated.

[32] **Stüben, P.E. (2001b):** Beschreibung einer neuen *Kyklioacalles*-Art aus Südspanien. Mit einem neuen Schlüssel der Arten des Genus *Kyklioacalles* (Col.: Curculionidae, Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **2**(23): 155-161. – HTML –
(see: http://www.curci.de/?beitrag=23)

Abstract: *Kyklioacalles nevadaensis* sp.n. (Spain: Sierra Nevada) is described and distinguished from other species of the genus *Kyklioacalles*. Relevant external characters and the male genitalia are illustrated. A new diagnostic key allows the identification of all species of *Kyklioacalles* Stüben 1999. Some notes about the destruction of the biodiversity of the Sierra Nevada (Spain) are included.

[33] **Stüben, P.E., Behne, L. & Bahr, F. (2001):** Analytischer Katalog der westpaläarktischen Cryptorhynchinae / Analytical Catalogue of Westpalearctic Cryptorhynchinae. **Teil 1/Part 1**, (Coleoptera: Curculionidae: Cryptorhynchinae: *Kyklioacalles, Onyxacalles, Dichromacalles, Calacalles, Echinodera*). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **2**(20): 59-119. – HTML –
(see: http://www.curci.de/?beitrag=20)

Abstract: The first „Analytical Catalogue" of Westpalearctic Cryptorhynchinae comprises **87** valid taxa belonging to the genera *Kyklioacalles* Stüben 1999, *Onyxacalles* Stüben 1999, *Dichromacalles* Stüben 1998, *Calacalles* (Peyerimhoff 1925) and *Echinodera* Wollaston 1863. The name of the species, the author, the year of the first description, all synonyms, information about the type specimen and about the collections in which type material is kept are given. The first description (including figures) and a current key to the species is presented. For a quick and easy determination the user of this catalogue will find **485** colour photographs, many drawings, SEM-photographs and plates. Therefore ervery fact in the text is „translated" into „visual language". The science history of the species names including sub- and infraspecific names is given. In addition the faunistical data of all valid taxa (**15858** specimen from **2292** localities) are compiled and **117** distribution maps are presented. Data of the ecology and biology of the species and the latest developments in research are given. Lectotypes are designated for *Acalles wollastoni* Chevrolat 1852 (*Calacalles wollastoni*) and *Acalles capiomonti* H. Brisout de Barneville 1864 (*Echinodera capiomonti*). The catalogue includes a complete bibliography of all species.

[34] **Stüben, P.E. & Wolf, I. (2001):** Beschreibung neuer westpaläarktischer *Onyxacalles*-Arten. Mit einem neuen Katalog und Schlüssel der Arten des Genus *Onyxacalles*. (Col.: Curculionidae: Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **2**(22): 143-154. – HTML –
(see: http://www.curci.de/?beitrag=22)

Abstract: *Onyxacalles bermejaensis* Stüben sp.n. (Spain: Sierra de Bermeja) und *Onyxacalles amasyaensis* Wolf sp.n. (Turkey) are described and distinguished from other species of the genus *Onyxacalles*. A neotypus is designated for *Acalles henoni* var. *portusveneris* Mayet 1903 (*Onyxacalles portusveneris*). Relevant external characters and the male genitalia of all discussed taxa are illustrated. A new diagnostic key allows the identification of all species of *Onyxacalles* Stüben 1999 and a new catalogue is presented.

[35] **Bayer, C. & P. E. Stüben (2001):** Chances and Necessity of a close Europe-wide Cooperation of the Specialists of West Palearctic Weevils (Curculionoidea). Report on the first international meeting of the members of the CURCULIO-Institute in Cattolica/San Giovanni in Marignano (Italy) in October 2001. in: WEEVIL NEWS: www.curci.de, No. **7**: 3 pp., CURCULIO-Institute: Mönchengladbach. – HTML –
(see: http://www.curci.de/?beitrag=65)

Abstract: The meeting was held from 12th to 15th October 2001. A list of participants is given and the results of the meeting are presented.

2002

[36] **Stüben, P.E. (2002):** Die *Cryptorhynchinae* von den Inseln Madeiras und Salvagens. Taxonomie, Bionomie, Biogeographie und Evolution. (Coleoptera: Curculionidae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **3**(29): 88-195. – HTML –
(see: http://www.curci.de/?beitrag=29)

Abstract: The species of the Cryptorhynchinae (Coleoptera: Curculionidae) of the Madeira and Salvages Islands are revised.The following 7 taxa are new described: *Acalles dispar achadagrandensis* Stüben **ssp.n.,** *Acalles portosantoensis* Stüben **sp.n.**, *Acalles senilis oceanicus* Stüben **ssp.n.,** *Acalles tolpis* Stüben **sp.n.,** *Acalles tristaensis* Stüben **sp.n.,** *Torneuma picocasteloensis* Stüben **sp.n**., *Torneuma maderensis* Stüben **sp.n.,** 21 species are redescribed, and lectotypes are designated for the following 12 taxa: *Acalles albolineatus* Wollaston 1854, *Acalles lunulatus* Wollaston 1854, *Acalles cinereus* Wollaston 1860, *Acalles coarctatus* Wollaston 1857, *Acalles dispar* Wollaston 1854, *Acalles festivus* Wollaston 1857, *Acalles ornatus* Wollaston 1854, *Acalles neptunus* Wollaston 1854, *Acalles nodiferus* Wollaston 1854, *Acalles saxicola* Wollaston 1854, *Acalles terminalis* Wollaston 1854, *Acalles vau* Wollaston 1854. 1 taxon is synonymized: *Acalles terminalis* var. *ß* Wollaston 1854 **syn. n.** (= *Acalles terminalis* Wollaston 1854). Significant external characters and the male genitalia of all species as well as the habitats, larvae, and pupae of selected species are illustrated/presented in 738 colour, 21 SEM photographs, 10 drawings, 39 maps and 10 audio sequences (stridulations). A key to the genera and species of the Cryptorhynchinae of the Madeira and Salvages Islands is provided in English, German and in Portuguese. Concerning the biogeography and evolution of the Cryptorhynchinae of Madeira, the concept of the "island effect" (distance to the continent, size of the island etc.), everybody is talking about, is replaced by the concept of "habitat diversity". Habitat diversity is here an important pre-condition for species-richness and for the high proportion of endemic species (92 per cent). The **great number of Madeiran Cryptorhynchinae species** is correlated - in contrast to the Canary Islands - with a significant **lower density of individuals**. The high amount of specialization and - at the same time - the low variety of forms among the very similar Cryptorhynchinae leads to the conclusion, that the main island (Madeira) was colonized **comparatively late**. The thesis is taken, that Madeira is colonized from the Canary Islands, against the current wind and current directions (mainstream "Canary Islands ~> Madeira"). Cryptorhynchinae - high-specialized and high-endangered. The conservation of the endangered Madeiran Cryptorhynchinae biotopes is demanded. **821 specimens from 18 species (in all 25)** were collected by the "Study Group *Acalles*" during 2000 and 2001 on every island of the Madeira archipelago. Finally a list with the complete faunistical data for each of the **28 species** (including the species from Salvages Islands) identified by the author is presented.

[37] **Stüben, P.E. (2002):** Beschreibung neuer *Cryptorhynchinae* aus Marokko. (Coleoptera: Curculionidae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **3**(30): 196-225. – HTML –
(see: http://www.curci.de/?beitrag=30)

Abstract: Descriptions of new Cryptorhynchinae from Morocco (Coleoptera: Curculionidae): *Acalles parasierrae* **sp.n.** (Rif Mts.), *Kyklioacalles snassensis* **sp.n.** (Beni Snassen Mts.), *Kyklioacalles tidiquinensis* **sp.n.** (Rif Mts.), *Onyxacalles gibraltarensis* **sp.n.** (Ceuta / Spain, Sebta), *Echinodera berkanensis* **sp.n.** (Beni Snassen Mts.), *Echinodera tellatlasensis* **sp.n.** (Beni Snassen Mts.), *Echinodera ketamaensis* **sp.n.** (Rif Mts.), *Echinodera ifranensis* **sp.n.** (Ifrane) *Echinodera tazzekaensis* **sp.n.** (Tazzeka Mts.) and *Echinodera ceutaensis* **sp.n.** (Ceuta / Spain, Sebta) from Morocco are described and distinguished from other species of the respective genus. A lectotype is designated for *Acalles clermonti* A. & F. Solari 1905 (*Kyklioacalles clermonti*). Relevant external characters and the male genitalia of all discussed taxa are illustrated. Moreover, new diagnostic keys allow the identification of all species of *Echinodera* Wollaston 1863 (North Africa), *Kyklioacalles* Stüben 1999 (Western Paleartic) and *Onyxacalles* Stüben 1999 (Western Palearctic).

[38] **Stüben, P.E. & Wolf, I. (2002):** *Echinodera* (s. str.) *kostenbaderi* n.sp. aus Norditalien und *Echinodera* (Dieckmannia) *brachati* n.sp. aus Griechenland (Curculionidae: Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **3**(32): 232-240. – HTML –
(see: http://www.curci.de/?beitrag=32)

Abstract: *Echinodera kostenbaderi* Stüben **n. sp.** (Italy: Mt. Lessini) and *Echinodera brachati* Wolf **n. sp.** (Greece: Taygetos) are

described and distinguished from other species of the genus *Echinodera*. Relevant external characters and the male genitalia of all discussed taxa are illustrated. A new diagnostic key allows the identification of all species of *Echinodera* Wollaston 1863 of Western Palearctic (without North Africa and Macaronesia).

[39] **Stüben, P.E. & Bahr, F. (2002): D**igital-**W**eevil **D**etermination - A Project of the Curculio-Institute. - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **3**(26): 9-10. – HTML –
(see: http://www.curci.de/?beitrag=26)

[40] **Stüben, P.E. & Bahr, F. (2002): D**igital-**W**eevil **D**etermination - Ein Projekt des Curculio-Instituts. - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **3**(27): 11-13. – HTML –
(see: http://www.curci.de/?beitrag=27)

[41] **Bahr, F. & Stüben, P.E. (2002): D**igital-**W**eevil **D**etermination - Transalpina: *Cryptorhynchinae*. (Coleoptera: Curculionoidea). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **3**(28): 14-87. – HTML –
(see: http://www.curci.de/?beitrag=28)

Abstract: Project: "**D**igital-**W**eevil-**D**etermination". [Fig.DWD1] For the first time a digital and interactive identification work for the subfamily **Cryptorhynchinae** (Coleoptera: Curculionidae), containing the species of the whole northern Westpalearctic ('Transalpina') - with the zoogeographical region North of Pyrenees, Alps and Caucasus (easternmost limit is Ural) [Fig. DWD2b] - is presented in English and German language. Beside detailed species-descriptions each characteristic in the key is made comprehensible by visualization. Basic principle: Comparing the distinguishing features that can be seen by light microscope with the features made visible by digital visualization on the screen of the monitor. Illustrations arranged to tables for the different faunal regions reduce the time to identify the species rapidly and with certainty.

2003

[42] **Stüben, P. E. (2003):** Beschreibung neuer Cryptorhynchinae aus Spanien, Italien und Marokko. Mit einem neuen *Onyxacalles*- und *Echinodera*-Schlüssel. - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **4**(41): 186-224. – HTML –
(see: http://www.curci.de/?beitrag=41)

Abstract: Descriptions of new Cryptorhynchinae from Spain, Italy and Morocco - with new diagnostic keys of all species of *Onyxacalles* Stüben 1999 and *Echinodera* Wollaston 1863, (Coleoptera: Curculionidae); with 304 colour photographies, 33 SEM photos, 89 drawings, 49 plates and 60 distribution maps. *Acalles sarothamni* **sp.n.** (Spain: Sierra de Gredos), *Acalles testensis* **sp.n.** (Morocco: High Atlas), *Acalles asniensis* **sp.n.** (Morocco: High Atlas), *Acalles lemur cisalpinus* **ssp. n.** (Italy), *Onyxacalles seguraensis* **sp.n.** (Spain: Sierra de Segura), *Echinodera andalusiensis* **sp.n.** (Spain: Sierra Bermeja), *Echinodera ibleiensis* **sp.n.** (Italy: Sicilia), *Echinodera siciliensis* **sp.n.** (Italy: Sicilia), *Echinodera nebrodiensis* **sp.n.** (Italy: Sicilia) and *Echinodera germanni* **n.sp.** (Morocco: High Atlas) are described and distinguished from other species of the respective genus. Relevant external characters and the male genitalia of all discussed taxa are illustrated. New diagnostic keys allow the identification of all species of *Echinodera* Wollaston 1863 and *Onyxacalles* Stüben 1999. Moreover, new scientific findings of the species of *Echinodera* are presented.

[43] **Stüben, P. E. (2003a):** Revision des Genus *Kyklioacalles* und Beschreibung der Untergattung *Palaeoacalles* subg. n. unter Heranziehung phylogenetischer, morphogenetischer und biogeographischer Aspekte (Curculionidae: Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **4**(38): 116-166. – HTML –
(see: http://www.curci.de/?beitrag=38)

Abstract: Revision of the genus *Kyklioacalles* and description of *Palaeoacalles* **subg. nov.** in consideration of phylogenetical, morphogenetical and biogeographical aspects (Coleoptera: Curculionidae), with 327 colour photographies, 6 SEM photos, 54 drawings, 28 plates, 28 distribution maps and 1 video sequence. *Kyklioacalles astragali* **sp.n.** (Spain: Sierra Baza), *Kyklioacalles erinaceus* **sp.n.** (Spain: Sierra de Gúdar), *Kyklioacalles euphorbiophilus* **sp.n.** (Morocco: High Atlas), *Kyklioacalles reginae* **sp.n.** (Spain: Sierra de Gúdar) and *Kyklioacalles yestensis* **sp.n.** (Spain: Sierra de Segura) are described and distinguished from other species of the genus. Description of *Palaeoacalles* **subg. n.** with the species *Kyklioacalles roboris* (Curtis 1834) (type species: *Acalles roboris* Curtis 1834) and *Kyklioacalles navieresi* (Boheman 1837) **resyn**. Lectotypes are designated for *Acalles apogeus* Peyerimhoff 1925 (*Kyklioacalles apogeus*), *Acalles roboris* Curtis 1834, *Acalles navieresi* Boheman 1837 and *Acalles abstersus* Boheman 1837. The following synonym is established: *Kyklioacalles fausti* (Meyer 1896) = *Acalles roboris monstrosus* Frieser 1955 **syn.n.**. Relevant external characters and the male genitalia of all discussed taxa are illustrated by digital photographs and SEM-photographs. Moreover, maps of distribution and a new diagnostic key allow the identification **of all** species of *Kyklioacalles* Stüben

1999. The results of the cladistical and phylogenetical analysis of the *Kyklioacalles* species from 1999 are verified by 1. morphogenesis of the structure of the internal sack of the aedeagus, 2. biogeography of the species and 3. phylogenesis of the species based on ecological results, their host-plant interaction and the evolutionary host-plant change of *Kyklioacalles* species.

[44] **Stüben, P.E. (2003b):** The Rediscovery of *Acalles droueti* Crotch 1867 and Curculionoidea collected on an excursion on the Azores: A Report. (Coleoptera: Curculionidae: Cryptorhynchinae). in: WEEVIL NEWS: www.curci.de, No. **16**: 10 pp., CURCULIO-Institute: Mönchengladbach. – HTML –
(see: http://www.curci.de/?beitrag=79)

Abstract: *Acalles droueti* Crotch 1867 was rediscovered in *Euphorbia stygiana* on the islands of Pico and Faial during a trip to the Azores in the summer of 2003. The biology, ecology, and habitat requirements of these species are described. A list of Curculionoidea that were also collected and new finds is given in the Appendix.

[45] **Stüben P.E. (2003c):** Die Wiederentdeckung von *Acalles droueti* Crotch 1867 und die Curculionoidea-Beifänge von einer Exkursion auf die Azoren: Ein Report. (Coleoptera: Curculionidae: Cryptorhynchinae). in: COLEO: www.coleo.de, Nr. **4**: S. 17-32, (ISSN 1616-3281). – PDF –

Zusammenfassung: Es wird die Wiederentdeckung von *Acalles droueti* CROTCH 1867 an *Euphorbia stygiana* auf Pico und Faial anläßlich einer Reise auf die Azoren im Sommer 2003 beschrieben. Die Biologie und Ökologie sowie die Habitatansprüche dieser Art werden vor dem Hintergrund der fortschreitenden Zerstörung des Laurisilva auf den Azoren dargestellt und diskutiert. Eine Liste der Curculionoidea-Beifänge und der Neufunde für die Azoren insgesamt (2 Arten) bzw. für einige Inseln (5 Arten) wird im Anhang vorgestellt.

[46] **Stüben P.E. (2003d):** Breeding of *Kyklioacalles euphorbiophilus* Stüben 2003 (Coleoptera: Curculionidae: Cryptorhynchinae). in: WEEVIL NEWS: www.curci.de, No. **15**: 6 pp., CURCULIO-Institute: Mönchengladbach. (ISSN 1615-3472). – HTML –
(see: http://www.curci.de/?beitrag=78)

Abstract: *Kyklioacalles euphorbiophilus* Stüben 2003 from High Atlas, Morocco, is bred from dying parts of its host-plant, *Euphorbia nicaeensis* All. Taking as a starting-point habitat requirements at the 'locus typicus', the biotic and abiotic environmental conditions and methods of this successful breeding are presented here. All phases of development and breeding are demonstrated by 20 figures and 1 video sequence. Finally, recommendations for further breeding of flightless Cryptorhynchinae are given.

[47] **Stüben P.E. (2003e):** Zucht von *Kyklioacalles euphorbiophilus* Stüben 2003. (Coleoptera: Curculionidae: Cryptorhynchinae). in: COLEO: www.coleo.de, Nr. **4**: S. 7-16, (ISSN 1616-3281). – PDF –

Zusammenfassung: Kyklioacalles euphorbiophilus Stüben 2003 aus dem Hohen Atlas Marokkos wurde an der im Absterben begriffenen Entwicklungspflanze Euphorbia nicaeensis All. gezüchtet. Ausgehend von den Biotopbedingungen am Locus typicus werden die biotischen und abiotischen Faktoren bzw. methodischen Voraussetzungen dieser erfolgreichen Zucht vorgestellt. Anhand von 20 Abbildungen und 1 Video werden alle Phasen der Entwicklung und der Zucht dargestellt. In einer abschließenden Diskussion werden für weitere Zuchten flugunfähiger Cryptorhynchinae erste Anhaltspunkte geliefert.

[48] **Stüben, P.E., Behne, L. & Bahr, F. (2003):** Analytischer Katalog der westpaläarktischen Cryptorhynchinae/Analytical Catalogue of Westpalearctic Cryptorhynchinae. **Teil2 / Part 2:** *Acalles, Acallocrates* (Col.: Curculionidae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **4**(36): 11-100. – HTML –
(see: http://www.curci.de/?beitrag=36)

Abstract: The second „Analytical Catalogue" of Westpalearctic Cryptorhynchinae comprises **103** valid taxa belonging to the genera *Acalles* Schoenherr 1825 and *Acallocrates* Reitter 1913. The name of the species, the author, the year of the first description, all synonyms, information about the type specimen and about the collections in which type material is kept are given. The first description (including figures) and a current key to the species is presented. For a quick and easy determination the user of this catalogue will find **696** colour photographs, many drawings, SEM-photographs and plates. The science history of the species names including sub- and infraspecific names is given. In addition the faunistical data of all valid taxa (**16.690** specimen from **1.872** localities) are compiled and **136** distribution maps are presented. Data of the ecology and biology of the species and the latest developments in research are given. Lectotypes are designated for ***Acalles aubei*** Boheman 183, ***Acalles fallax*** Boheman 1844, ***Acalles ganglbaueri*** A. & F. Solari 1907, ***Acalles gracilipes*** F. Solari 1938, ***Acalles denominandus*** A. & F. Solari 1907 (now: ***Onyxacalles denominandus***), ***Acalles droueti*** Crotch 1867, ***Acalles echinatus* var. *squamosus*** A. & F. Solari 1907, ***Acalles edoughensis*** Desbrochers 1892, ***Acalles longus*** Desbrochers 1892, ***Acalles misellus*** Boheman 1844, ***Acalles nocturnus***

Boheman 1837, ***Acalles olcesei*** Tournier 1873, ***Acalles pulchellus*** H. Brisout 1864, ***Acalles reitteri*** Meyer 1896, ***Acalles setulipennis*** Desbrochers 1871, ***Acalles turbatus*** Boheman 1844, ***Acalles turbatus* var. *dubius*** A. & F. Solari 1907 (***Acalles dubius***), ***Curculio camelus*** Fabricius 1792 (***Acalles camelus***) and ***Trachodius tibialis*** Weise 1891 (***Acalles tibialis***). The following new synonyms are established: ***Acalles edoughensis*** Desbrochers 1892 = ***Acalles hederae*** Gonzalez 1965 **nov. syn.**, ***Acalles fallax*** Boheman 1844 = ***Acalles commutatus*** Dieckmann 1982 **nov. syn.** and ***Scleropterus offensus*** Boheman 1837 = ***Acalles rufipes*** Chevrolat 1879 **nov. syn.** Only three species could not be checked (type material and collection-material): ***Acalles editorum*** Peyerimhoff 1913 (Locus typicus: Algeria), ***Acalles granulicollis*** Tournier 1873 (Locus typicus: Morocco) und ***Acalles ovalipennis*** Petri 1912 (Locus typicus: Rumania). The catalogue includes a complete bibliography of all species.

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[49] **Stüben, P.E. (2004):** Editorial. - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **5**: 1-8. – PDF –
https://www.curci.de/?editorial=5&lang=en

[50] **Stüben P.E. (2004a):** Zucht von *Calacalles droueti* (Crotch 1867) von den Azoren (Coleoptera: Curculionidae: Cryptorhynchinae). in: WEEVIL NEWS: www.curci.de, No. **18**: 6 pp., CURCULIO-Institute: Mönchengladbach. (ISSN 1615-3472) *and* - COLEO: www.coleo.de, Nr. **5**: S. 1-5, (ISSN 1616-3281). – HTML –
(see: http://www.curci.de/?beitrag=80)

Abstract: Breeding of *Calacalles droueti* (Crotch 1867) from the Azores (Coleoptera: Curculionidae: Cryptorhynchinae). The endemic Azorean weevil species *Calacalles droueti* (Crotch 1867) (Pico) is bred from a branch of its host plant, *Euphorbia stygiana* Wats. Taking into account the habitat situation on the Azores (f.e. high precipitation), the biotic and abiotic factors and the methodical conditions of this breeding, that lasted for 4 months, are demonstrated. On 16 colour plates, all phases of development are shown. Finally, some generally valid hypothesis for the breeding of flightless Cryptorhynchinae are put forward.

[51] **Stüben, P.E. (2004b):** Revision der *Kyklioacalles teter-barbarus* Gruppe - Anmerkungen zur Biologie und evolutiven Adaptation der neuen Arten. (Coleoptera: Curculionidae: Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **5**(54): 60-85. – HTML –
(see: http://www.curci.de/?beitrag=54)

Abstract: Revision of the *Kyklioacalles teter-barbarus* group in consideration of biological aspects and adaptations of the new species (Coleoptera: Curculionidae: Cryptorhynchinae); with 205 colour photographies, 19 SEM photos, 6 plates, 11 distribution maps and 1 video sequence. The genus *Kyklioacalles* Stüben 1999 divided into the two preliminary subgroups: the *K. teter* subgroup (A) and the *K. barbarus* subgroup (B). ***Kyklioacalles almadensis* sp. n.** (Spain), ***Kyklioacalles almadophilus* sp. n.** (Spain), ***Kyklioacalles anthyllis* sp. n.** (Spain), ***Kyklioacalles bupleuri* sp. n.** (Tunisia) and ***Kyklioacalles pseudobarbarus* sp. n.** (Algeria) are described. A lectotype is designated for ***Kyklioacalles barbarus*** (Lucas 1849) from Western Algeria and this species is redescribed. Relevant external characters and the male genitalia of all discussed taxa are illustrated, and a new diagnostic key allows the identification of all species of the *Kyklioacalles teter-barbarus* group. The larvae and pupae of ***Kyklioacalles bupleuri*** (incl. eggs) and ***Kyklioacalles euphorbiophilus*** Stüben 2003 (Morroco) are described and compared with each other for the first time. Remarks on biology, ecology and adaptation are added to each description.

[52] **Stüben, P. E. (2004):** Beschreibung neuer spanischer Arten aus der *Acalles sierrae*-Gruppe (Coleoptera: Curculionidae: Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **5**(55): 86-99. – HTML –
(see: http://www.curci.de/?beitrag=55)

Abstract: Descriptions of new species of the *Acalles sierrae* group from Spain (Coleoptera: Curculionidae: Cryptorhynchinae); with 112 colour photographies, 5 plates and 11 distribution maps. ***Acalles cytisi* sp.n.** (Sierra de Gredos), ***Acalles cazorlaensis* sp.n.** (Sierra de Carzorla), ***Acalles guadarramaensis* sp.n.** (Sierra de Guadarrama) and ***Acalles monasterialis* sp.n.** (Sierra de la Peña de Francia) are described and distinguished from the 7 known species of the new informal *Acalles sierrae* group: ***Acalles sierrae*** H. Brisout de Barneville 1865, ***Acalles maraoensis*** Stüben 2001, ***Acalles bazaensis*** Stüben 2001, ***Acalles parasierrae*** Stüben 2002, ***Acalles asniensis*** Stüben 2003, ***Acalles testensis*** Stüben 2003 and ***Acalles sarothamni*** Stüben 2003. Relevant external characters and the male genitalia of all discussed taxa are illustrated. A new diagnostic key allows the identification of all species of the this group. Moreover, new scientific findings of the species are presented.

[53] **Stüben, P.E. (2004d):** Die Cryptorhynchinae der Azoren (Coleoptera: Curculionidae), - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **5**(53): 34-59. – HTML –
(see: http://www.curci.de/?beitrag=53)

Abstract: The Cryptorhynchinae of the Azores (Coleoptera: Curculionidae); with 256 colour photographies, 29 SEM photos, 9 plates and 14 distribution maps. *Crateracalles* subg. n. (type species: *Acalles droueti* Crotch 1867) of the genus *Calacalles* Peyerimhoff 1925 with the species *Calacalles azoricus* sp.n. und *Calacalles droueti* (Crotch 1867) comb. nov. (former: *Acalles*) from the Azores (Portugal) are (re)described. The successful breeding of *Calacalles droueti* is presented, and for both species of *Crateracalles* the larvae and pupae are described for the first time. *Calacalles subcarinatus* (Israelson 1984) comb. nov. (former: *Acalles*) of the subgenus *Saetiacalles* Bahr 2000 and *Dichromacalles dromedarius* (Boheman 1844) from the Azores are redescribed and compared with some other species of each genus. Relevant external characters and the male genitalia of all discussed taxa are illustrated, and a new diagnostic key allows the identification of all species of the genus *Calacalles*. Furthermore biology, ecology and biotope conditions of this species are presented in face of the continuous destruction of the Azorean Laurisilva.

[54] **Stüben, P. E. (2004e):** Beschreibung neuer tunesischer *Echinodera*-Arten aus der Untergattung *Dieckmannia* (Coleoptera: Curculionidae: Cryptorhynchinae), - ***SNUDEBILLER**: Studies on taxonomy, biology and ecology of Curculionoidea* **5**(56): 100-115. – HTML – (see: http://www.curci.de/?beitrag=56)

Abstract: Descriptions of new species of the genus *Echinodera* (subgenus: *Dieckmannia*) from Tunisia; with 156 colour photographies, 4 SEM photos, 4 drawings,17 plates and 19 distribution maps. *Echinodera capbonensis* sp.n., *Echinodera kesraensis* sp.n., *Echinodera kroumiriensis* sp.n., *Echinodera setosagracilis* sp.n. and *Echinodera zaghouanensis* sp.n. are described and distinguished from other species of the subgenus *Dieckmannia* Stüben 1998. Relevant external characters and the male genitalia of all discussed taxa are illustrated. A new diagnostic key allow the identification of all species of the genus *Echinodera* Wollaston 1863 from Northern Africa.

[55] **Stüben, P. E. & Behne L. (2004f):** Das Land der Echinoderen - Reisebericht und Artenliste einer Exkursion des CURCULIO-Instituts nach Tunesien 2003 - (Coleoptera: Curculionoidea). in: WEEVIL NEWS: www.curci.de, No. **22**: 14 pp., CURCULIO-Institute: Mönchengladbach. – HTML – (see: http://www.curci.de/?beitrag=83)

Abstract: The land of *Echinodera* - travel report and species list of an exkursion of the CURCULIO-Institute to Tunesia 2003 (Coleoptera: Curculionoidea); with 49 figures. From October 19th to November 2nd, 2003, the third excursion of the CURCULIO-Institute was carried took place. The northern and central parts of Tunesia were the area of interest. Biotopes and finding circumstances of many Curculionoidea are presented, and habitats of several new *Echinodera* and *Kyklioacalles* species are described. Finally a complete species list of all collected weevils is given (93 species). Habitus and aedeagus of new species and of species, that could not be identified, are depicted. With 49 figures.

[56] **Stüben, P. E. (2004g):** Zur Biologie von *Acalles poneli* Stüben 2000 - (Coleoptera: Curculionoidea). in: WEEVIL NEWS: www.curci.de, No. **19**: 13 pp., CURCULIO-Institute: Mönchengladbach. – HTML – (see: http://www.curci.de/?beitrag=81)

Abstract: On the Biology of *Acalles poneli* Stüben 2000 (Coleoptera: Curculionidae: Cryptorhynchinae); with 35 coloured tables, 13 SEM photos and 1 distribution map; including a summary in English language. The host plant relationships of *Acalles poneli* Stüben 2000 from Tenerife (Teno Mts) are studied in detail. Not *Euphorbia obtusifolia* Poir., as supposed up to now, but *Euphorbia balsamifera* Ait. and *Euphorbia atropurpurea* (Brouss.) W. & B. are the host plants of *Acalles poneli*. The adult weevils have to overcome a high barrier: the insect-toxic latex of Euphorbiaceae ('avoidance strategy'). The successful breeding of *Acalles poneli* on *Euphorbia atropurpurea*, host plant of 'first choice' is presented here, and the different environmental parameters effective during larval stages are compared with habitat conditions on Tenerife. The result: Not only the presence of the host plant *Euphorbia atropurpurea* is a crucial pre-condition, but also the rapid change from extreme wet to extreme dry habitat structures ('switch-habitats') during metamorphosis is important for the moment of egg-deposition in *Acalles poneli*! Finally eggs and larvae of *Acalles poneli* are described for the first time.

[57] **Stüben, P.E. (2004h):** Fauna Europaea: Cryptorhynchinae. in: Alonso Zarazaga M. A. (Ed.), Fauna Europaea: Coleoptera. Fauna Europaea Version 1.1, (thereafter no longer being regularly updated), http://www.faunaeur.org

[58] **Stüben, P.E. & Bayer, Ch. (2004):** CURCULIO Institute established in Eastern Middle Europe! Report on the 3rd international Conference of the CURCULIO Institute in Ochotnica Górna (Western Carpathians), Poland, 1st to 7th August 2004. in: WEEVIL NEWS: www.curci.de, No. **21**: 4 pp., CURCULIO-Institute: Mönchengladbach. – HTML – (see: http://www.curci.de/?beitrag=82)

[59] **Germann, Ch. & P. E. Stüben (2004):** Beschreibung neuer *Onyxacalles*-Arten aus dem mediterranen Raum und Anmerkungen zur Synonymie einiger Arten der Gattung *Onyxacalles* Stüben 1999. (Coleoptera: Curculionidae, Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **5**(57): 116-131. – HTML –
(see: http://www.curci.de/?beitrag=57)

Abstract: Descriptions of two new species of the genus *Onyxalles* of the mediterranean region with notes to the synonymies of some species of *Onyxacalles* Stüben 1999 (Coleoptera: Curculionidae: Cryptorhynchinae); with 135 colour photographies, 6 plates and 17 distribution maps. *Onyxacalles hannibali* Germann sp.n. (Tunisia: Dorsale) and *Onyxacalles maginaensis* Stüben sp.n. (Spain: Jaén) are described and distinguished from the **13** known species of the genus *Onyxacalles* Stüben 1999. Relevant external characters and the male genitalia of all discussed taxa are illustrated. A new diagnostic key allows the identification of all species of the genus *Onyxacalles*. Moreover, new scientific findings of the species are presented. A lectotype and paralectotypes are designated for *Acalles pyrenaeus* Boheman 1844. The neotype designation of this species by Kostál & Holecová (2001) falls away [ICZN 2000: 75.8]. Following synonymies are established: *Acalles pyrenaeus* Boheman 1844 (= *Acalles pyrenaeus germanicus* Letzner 1882 = *Onyxacalles boehmei* Kostál & Holecová 2001 **n. syn.**).

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[60] **Stüben, P.E. (2005):** Editorial . - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **6**: 1-8.
https://www.curci.de/?editorial=6&lang=en

[61] **Stüben, P. E. (2005a):** Zur Verbreitung von *Kyklioacalles navieresi* (Boheman 1837) und *Kyklioacalles roboris* (Curtis 1834) im Rheinland / Germany (Coleoptera: Curculionidae: Cryptorhynchinae). in: WEEVIL NEWS: http://www.curci.de/Inhalt.html, No. **25**: 9pp, CURCULIO-Institute: Mönchengladbach **und** in: COLEO. Arbeiten und Berichte aus der Coleopterologie: www.coleo.de, (ISSN 1616-3281), No. **6**: 1-15. – PDF - – HTML –
(see: http://www.curci.de/?beitrag=143)

Abstract: Distribution of *Kyklioacalles navieresi* (Boheman, 1837) and *Kyklioacalles roboris* (Curtis, 1834) in the Rhineland / Germany and finding circumstances at the Bausenberg / Eifel Mountains (Coleoptera: Curculionidae: Cryptorhynchinae); with 28 figures. Starting from differential diagnosis, identification of food and host plants and of Palaearctic and parapatric distribution, the occurrence of the species *Kyklioacalles navieresi* (Boheman, 1837) and *Kyklioacalles roboris* (Curtis, 1834) in the Rhineland is presented and discussed. Both species were found at the Bausenberg / Eifel Mountains for the first time in the same area. The hypothesis, that *Kyklioacalles roboris* is the more hygrophilous species over large parts of Europe, must be completed by the hypothesis that *Kyklioacalles navieresi* clearly prefers more xerothermous sites. On the southern sun-exposed slopes of the Bausenberg, a former volcano of Eifel Mountains, with a sparse and dry vegetation of *Quercus robur* shrubs, exclusively *Kyklioacalles navieresi* could be found. In the summer month, this part of the Bausenberg is often drying out and heating up within short periods. Based on experiences with other *Kyklioacalles* species, the two first larval stages of *Kyklioacalles roboris* cannot develop in such dry habitats; they need three month in high summer. However, they have a better chance in dense deciduous forests or in hedgerows with *Carpinus betulus* L. Moist and shady habitats are clearly preferred by *Kyklioacalles roboris* at the Bausenberg.

[62] **Stüben P.E. (2005b):** *Basar Taxonomie*? - Ein erfolgreiches Kreuzungsexperiment zu *Acalles aeonii* Wollaston, 1864 (Coleoptera: Curculionidae). in: WEEVIL NEWS: http://www.curci.de/Inhalt.html, No. **31**: 13pp, CURCULIO-Institute: Mönchengladbach **und** in: COLEO. Arbeiten und Berichte aus der Coleopterologie: www.coleo.de, (ISSN 1616-3281), No. **6**: 21-33.-PDF- – HTML –
(see: http://www.curci.de/?beitrag=144)

Abstract: As a result of a successful cross-breeding of ***Acalles aeonii* Wollaston 1864 x *Acalles bodegensis* Stüben 2000** the following synonymy is established definitively: ***Acalles aeonii* Wollaston 1864 = *Acalles bodegensis* Stüben 2000 syn. nov.** A detailed report on rearing and cross-breeding of the former two species on its host plant *Aeonium holochrysum* W. & B. during a number of generations is given and the results are discussed. With a detailed discussion to the necessity of cross-breeding experiments in the field of taxonomic-systematic research. Including 31 colour photographies.

[63] **Stüben, P. E. (2005c):** Die Cryptorhynchinae-Fauna der Baleareninsel Mallorca (Coleoptera: Curculionidae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **6**(63): 114-130. – HTML –
(see: http://www.curci.de/?beitrag=63)

Abstract: The Cryptorhynchinae of Majorca (Balearic Islands) (Coleoptera: Curculionidae); with 231 colour photographies, 11 plates, 3 drawings and 23 distribution maps. *Onyxacalles balearicus* spec. nov. and *Paratorneuma mallorcense* spec. nov. from Majorca (Balearic Islands) are described and distinguished from other species of the genus. The subgenus *Saetiacalles* Bahr 2000 is a synonym of *Calacalles* s.str. Peyerimhoff 1925. *Calacalles moraguesi* (Desbrochers 1898) and *Acalles breiti* A. & F. Solari 1908, both are endemic species of Majorca, and *Dichromacalles dromedarius* (Boheman 1844) from southwestern Europe, Northern Africa and the Macaronesian Islands are presented. For all species the faunistical data are compiled and distribution maps are presented. Relevant external characters and the male genitalia of all discussed taxa are illustrated. New diagnostic keys allow the identification of all species of the genus *Onyxacalles* Stüben 1999 and *Paratorneuma* Roudier 1956.

[64] **Stüben, P. E. (2005d):** An illustrated Up-to-date Catalogue of Westpalaeartic Cryptorhynchinae. in: ***Le Charançon***: CATALOGUES & KEYS (since 1st November 2005): http://www.curci.de, No. **1**: CURCULIO-Institute: Mönchengladbach.

[65] **Stüben P.E., F. Bahr (2005):** Illustrated Key of the Cryptorhynchinae of Middle-Europe (Coleoptera: Curculionoidea)**. in:** WEEVIL NEWS: http://www.curci.de/Inhalt.html, No. **30**: 4pp, CURCULIO-Institute: Mönchengladbach *and* in: ***Le Charançon*** (25th September 2005): http://www.curci.de, No. **2**: CURCULIO-Institute: Mönchengladbach **and** in: COLEO, Arbeiten und Berichte aus der Coleopterologie: www.coleo.de, (ISSN 1616-3281), No. **6**: 16-25. – HTML – (see: http://www.curci.de/?beitrag=146)

Abstract: For the first time a subfamily of Curculionidae, the Central European species of Cryptorhynchinae, are accounted in a pictorial key. In the introduction the advantage of such a pictorial key is presented and discussed under the "primacy of scientific illustrations in identification works".

[66] **Stüben P.E., F. Bahr, Ch. Germann, L. Behne & Ch. Bayer (2005):** Beschreibung neuer Cryptorhynchinae aus dem mediterranen Raum (Coleoptera: Curculionidae: Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **6**(62): 84-113. – HTML – (see: http://www.curci.de/?beitrag=62)

Abstract: Description of new species of Cryptorhynchinae from the mediterranean region (Coleoptera: Curculionidae); with 439 colour photographies, 15 SEM photos, 25 plates and 35 distribution maps. ***Acalles berberi* Stüben sp.n.** (Morocco: Rif Mts.), ***Acallorneuma ibericum* Stüben sp.n.** (Spain: Sierra de las Villas), ***Echinodera ariadnae* Bahr & Bayer sp.n.** (Greece: Crete), ***Echinodera athosensis* Behne sp.n.** (Greece: Mt. Athos), ***Echinodera minosi* Bahr & Bayer sp.n.** (Greece: Crete), ***Echinodera settefratelliensis* Stüben sp.n.,** (Italy: Sardinia), ***Kyklioacalles characivorus* Stüben sp.n.** (Italy: Sardinia)**, *Kyklioacalles velebitensis* Stüben sp.n.** (Croatia: Velebit Mts.) and ***Onyxacalles valencianus* Germann sp.n.** (Spain: Barcelona) are described and distinguished from known species. Relevant external characters and the male genitalia of all discussed taxa are illustrated. New biological and ecological scientific findings of the species are presented. Moreover, a new diagnostic key allows the identification of all species of the genus *Echinodera* from Europe.

[67] **Stüben, P.E. & Germann, Ch. (2005):** Neue Erkenntnisse zur Taxonomie, Biologie und Ökologie der Cryptorhynchinae von den Makaronesischen Inseln. 1. Beitrag: Kanaren / Tenerife (Coleoptera: Curculionidae: Cryptorhynchinae), - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **6**(61): 37-83. – HTML – (see: http://www.curci.de/?beitrag=61)

Abstract: New observations on taxonomy, biology and ecology of Macaronesian Cryptorhynchinae. First contribution: Canary Islands / Tenerife (Coleoptera: Curculionidae: Cryptorhynchinae); including 297 colour- and 19 SEM-photographs. 20 plates and 30 distribution maps are presented. ***Dendroacalles* Stüben gen. nov.** and ***Euphorbioacalles* Stüben subg. nov.** (Macaronesian Islands) as well as ***Echinodera guacimara* Stüben & Germann spec. nov.** (Tenerife) are described. Relevant external characters and the male genitalia of all discussed taxa are illustrated and a new diagnostic key - both in German and in Spanish - allows the identification of all species of the new genus ***Dendroacalles***. The following synonym is established: ***Acalles ornatus* Wollaston 1854** (Madeira) = ***Acalles fortunatus* Wollaston 1864 syn.nov.** (La Gomera). New observations on biology, ecology and evolutive adaptation, as well as phylogenetic analyses of some species of the new genus *Dendroacalles* are given. Therefore the species of *Dendroacalles* s. str. are extremely specialised inhabitants of the ancient thermocanarian laurel forest zone, which they colonized just in recent times of earth history! As a result of a successful cross-breeding of ***Acalles aeonii* Wollaston 1864 x *Acalles bodegensis* Stüben 2000** the following synonymy is established definitively for the first time: ***Acalles aeonii* Wollaston 1864 = *Acalles bodegensis* Stüben 2000 syn. nov.** A detailled report on rearing and cross-breeding of the former two species on its hostplant *Aeonium holochrysum* W. & B. during a number of generations is given and the results are discussed. In the second part of this contribution Peter E. Stüben and Christoph Germann present new observations on biology and ecology of ***Acalles alluaudi*** Uyttenboogaart 1940, ***Acalles senilis senilis*** Wollaston 1864, ***Acalles nubilosus*** Wollaston 1864, ***Acalles sonchi*** Stüben 2000, ***Acalles pedestris*** Stüben 2000, ***Acalles pilula*** Wollaston 1864, ***Dendroacalles poneli*** (Stüben 2000) und ***Dendroacalles***

anagaensis (Stüben 2000), which the authors made during a field trip toTenerife (20.12.2003 - 4.1.2004). The subsequent breeding of these species on its respective hostplants is an important part of this work. Finally a checklist of the entire material of Cryptorhynchinae collected on this field trip to Tenerife in **42** localities is given. It comprises altogether **25** species and **758** specimen.

[68] **Germann, C., F. Bahr, C. Bayer, L. Behne, G. & U. Müller, P. Sprick, P. Stüben & H. Winkelmann (2005):** First record of *Pachyrhinus lethierryi* (Desbrochers, 1875) and *Otiorhynchus crataegi* Germar, 1824 at the Niederrhein (Germany: Rhineland) (Curculionidae: Entiminae: Polydrusini). in: Weevil News: http://www.curci.de/Inhalt.html, No. **28**: 3 pp., CURCULIO-Institute: Mönchengladbach. – HTML –
(see: http://www.curci.de/?beitrag=132)

Abstract: *Pachyrhinus lethierryi* and *Otiorhynchus crataegi* are reported for the first time in Mönchengladbach-Neuwerk for the Niederrhein region (Rhineland). Some dozens of individuals of the apparent green-coloured *Pachyrhinus lethierryi*, a south European species, were found in gardens on *Thuja occidentalis* L., a commonly planted conifer. The change of the host plant and the enlargement of the distribution area are pointed out. *Otiorhynchus crataegi* was found by dawn in gardens on *Thuja*, but also on *Lonicera*, *Cotoneaster* spp. and other ornamental dwarf-shrubs.

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[69] **Stüben, P.E. (2006):** Editorial: Dear authors - our readers want more...- ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **7**: 1-13. – PDF –
https://www.curci.de/?editorial=7&lang=en
https://www.curci.de/?editorial=7&lang=de

[70] **Stüben, P.E. (2006a):** Revision der *Kyklioacalles puncaticollis* Gruppe - mit Anmerkungen zur Biologie und evolutiven Adaptation der Arten (Coleoptera: Curculionidae: Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **7**(94): 214 - 234. – HTML –
(see: http://www.curci.de/?beitrag=94)

Abstract: Revision of the *Kyklioacalles punctaticollis* group in consideration of biological aspects and adaptations of the species (Coleoptera: Curculionidae: Cryptorhynchinae); with 146 coloured photographies, 13 plates and 11 distribution maps. ***Kyklioacalles armeniacus* sp. n.** (Turkey) is described. Lectotypes are designated for ***Acalles syriacus* Pic 1900** (Lebanon) and ***Acalles editorum* Peyerimhoff 1913** (Algeria), and these species are redescribed. The validity of the subspecies ***Kyklioacalles punctaticollis punctaticollis* (Lucas 1849)** and ***Kyklioacalles punctaticollis meteoricus* (Meyer 1909)** is discussed in detail, and a first working hypothesis about the differentiation and the distribution of both species is proposed. In this context the possibilities and the limitations of morphological and taxonomical analyses - beyond molecular biological investigations - are debated. **Conclusion:** The differential diagnosis of species cannot be done without morphological, ecological and biological studies on the complex structures of the phenotype, particularly with regard to cross-breedings, but it is not sufficient to reconstruct the phylogenesis of the species. Here any differential diagnosis is reliant on an integrative taxonomy combining DNA taxonomy and morphology. Relevant external characters and the male genitalia of all discussed taxa are illustrated. Moreover, a new diagnostic key allows the identification of all species of the *Kyklioacalles punctaticollis*-group. Finally, some notes to biological aspects and adaptations of the species are given in each (re)description.

[71] **Stüben, P.E. (2006b):** Revision des Genus *Acallorneuma* Mainardi 1906 - Taxonomie, Biologie, Ökologie und Molekularbiologie (Coleoptera: Curculionidae: Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **7**(93): 182 - 213. – HTML –
(see: http://www.curci.de/?beitrag=93)

Abstract: Revision of the genus *Acallorneuma* Mainardi 1906 - Taxonomy, biology, ecology and molecular biology (Coleoptera: Curculionidae: Cryptorhynchinae); including 200 coloured photographies, 17 plates and 11 distribution maps. In an English-German introduction ideas of epistemology and philosophy of science are presented concerning the 'primacy of differential diagnosis and scientific illustration in first description and revision': In this work 9 species of the genus *Acallorneuma* are described by digital 'picture descriptions' and 14 detailed differential diagnoses are added. Morphotypes of the West Palaearctic Cryptorhynchinae are compiled in an ecological-morphological examination, and the following thesis is put forward: With an increase in height and a decrease of density of habitat structures in a tree-shrub-community, the intrageneric variability and the wealth of forms is increasing in Cryptorhynchinae [Tab. OEK]. From this point of view an only morphological matrix of characters is out of question if used for a 'phylogenetical reconstruction' of the very similar epigeic or edaphic *Acallorneuma* species: The phylogenetical analysis of characters proposed by Osella & Zuppa 2002 does not consider complex phenotypical structures, and in cryptic species that seem to be morphologically 'identical' one should do without! The following synonyms are discussed in detail and fixed: *Acallorneuma sardiniense* Osella & Zuppa 2002 = *Acallorneuma gasparoi* Osella & Zuppa 2002 syn. n. = *Acallorneuma poggii* Osella & Zuppa

2002 syn. n. Instead of arguments based on morphological, biogeographical and mainly molecular biological investigations on the mitochondrial, ribosomal 16S-gene, a synonymization of *Acallorneuma sabellai* Osella & Zuppa 2002 and *Acallorneuma doderoi* A. & F. Solari 1908 is postponed here until DNA of *Acallorneuma sabellai* from the locus typicus (Sicily: Erice) is available. A lectotype is designated for *Acallorneuma mainardii* A. & F. Solari 1908. Finally, a 'pictorial key' for the species of the genus *Acallorneuma* is presented.

[72] **Stüben, P.E. (2006c):** Neubeschreibungen westpaläarktischer Crpytorhynchinae **I** - Key for the *Acalles* and *Dendroacalles* species from the Madeira and the Salvages archipelago (Coleoptera: Curculionidae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **7**(95): 235 - 248. – HTML –
(see: http://www.curci.de/?beitrag=95)

Abstract: Description of new species of Cryptorhynchinae from the westpalaearctic region I - Key for the *Acalles* and *Dendroacalles* species from the Madeira and the Salvages archipelago (Coleoptera: Curculionidae); with 99 coloured photographies, 5 plates and 6 distribution maps. ***Acalles machadoi*** **Stüben sp. n.** (Portugal: Madeira), ***Echinodera vitoensis*** **Stüben sp. n.** (Italy: Sicily), ***Echinodera cognita*** **Stüben sp. n.** (Spain: Andalucía) and ***Echinodera spinosa*** **Stüben sp. n.** (Spain: Andalucía) are described and distinguished from known species. Relevant external characters and the male genitalia of all discussed taxa are illustrated. Moreover, a new diagnostic key (English / German) allows the identification of all species of the genus *Acalles and Dendroacalles* from Madeira and the Salvages archipelago.

[73] **Stüben, P.E. (2006d):** Macrophotography for everybody (Poster: (Fig. W34.23)), in: Munteanu, C.L. & L.A. Teodor (2006): CURCULIO-Institute on mission in Provence! Report on the 4th International Meeting on the CURCULIO-Institute in Cotignac, South France, from 16th to 23rd April 2006. in: Weevil News: http://www.curci.de/Inhalt.html, No. **34**: 4 pp., CURCULIO-Institute: Mönchengladbach. (ISSN 1615-3472). – HTML –
(see: http://www.curci.de/?beitrag=139)

[74] **Stüben, P.E. (2006e):** *Pantei Rhei*. Pictoral Catalogues and Keys - the new Journal of the CURCULIO Institute, (Poster: (Fig. W34.24)). in: Munteanu, C.L. & L.A. Teodor (2006): CURCULIO - Institute on mission in Provence! Report on the 4th International Meeting on the CURCULIO - Institute in Cotignac, South France, from 16th to 23rd April 2006. in: Weevil News: http://www.curci.de/Inhalt.html, No. **34**: 4 pp., CURCULIO - Institute: Mönchengladbach. (ISSN 1615-3472). – HTML –
(see: http://www.curci.de/?beitrag=139)

[75] **Stüben, P.E. & J.J. Astrin (2006a):** New insights from biogeography, morphology and molecular biology: the species status of *Acalles temperei* Pèricart, 1987 and *Kyklioacalles navieresi* (Boheman, 1837) (Curculionidae: Cryptorhynchinae). in: Weevil News: http://www.curci.de/Inhalt.html, No. **33**: 8 pp., CURCULIO-Institute: Mönchengladbach, (ISSN 1615-3472). – HTML –
(see: http://www.curci.de/?beitrag=145)

Abstract: Biogeographical and morphological arguments are presented that suggest the following synonymization: *Acalles parvulus* Boheman, 1837 = *Acalles temperei* Péricart, 1987. Comparing the aedeagi along a transect from Mont Pilat (Dep. Loire) to Mont Saint-Martin North of Grenoble (Dep. Isère), a cline becomes apparent that raises doubts about the species status of *Acalles temperei*. These results, obtained by comparative phenotypic examination, are corroborated in a preliminary set of molecular genetic analyses. The latter either hint the existence of a hybrid zone or indicate that *Acalles parvulus* and *Acalles temperei* constitute a single, geographically structured species. The molecular results for *Kyklioacalles roboris* (Curtis, 1834) and the recently resynonymized species *Kyklioacalles navieresi* (Boheman, 1837) are very different. DNA sequence analysis of the mitochondrial CO1 and 16S genes and of the nuclear 28S gene showed that *Kyklioacalles navieresi* and *Kyklioacalles roboris* likely represent two individual, but closely related species.

[76] **Stüben, P.E. & J.J. Astrin (2006b):** Biogeographische, morphologische und molekularbiologische Untersuchungen zum Artstatus von *Acalles temperei* Pèricart, 1987 und *Kyklioacalles navieresi* (Boheman, 1837) (Curculionidae: Cryptorhynchinae). in: COLEO. Arbeiten und Berichte aus der Coleopterologie: www.coleo.de, (ISSN 1616-3281), No. **7**: 1-9. – PDF –

Zusammenfassung: Neben biogeographischen werden morphologische Argumente zusammengetragen, die für eine Synonymisierung der Arten *Acalles parvulus* Boheman, 1837 = *Acalles temperei* Péricart, 1987 sprechen. Entlang eines Transekts zwischen dem Mont Pilat (Dep. Loire) und dem Mont Saint-Martin nördlich von Grenoble (Dep. Isère) wird über den Vergleich der

Aedoeagi eine Cline sichtbar, die am Artstatus von *Acalles temperei* zweifeln lässt. Bestätigung finden diese vergleichenden, phänotypischen Untersuchungen durch erste molekulargenetische Untersuchungen. Danach scheint entweder eine Hybridisierungszone wahrscheinlich oder der Verdacht liegt nahe, dass *Acalles parvulus* und *Acalles temperei* eine einzige, geographisch strukturierte Art darstellen.Völlig anders liegen die molekularbiologischen Ergebnisse bei *Kyklioacalles roboris* (Curtis, 1834) und der erst kürzlich resynonymisierten Art *Kyklioacalles navieresi* (Boheman, 1837): Die DNA-Sequenzanalysen der mitochondrialen CO1- und 16S-Gene sowie des nukleären 28S-Gens zeigen, dass *Kyklioacalles navieresi* und *Kyklioacalles roboris* zwei eigenständige, wenn auch eng verwandte Arten darstellen.

[77] **Germann, Ch. & P.E. Stüben (2006):** Neue Erkenntnisse zur Taxonomie, Biologie und Ökologie der Cryptorhynchinae von den Makaronesischen Inseln. 2. Beitrag: Kanaren / La Gomera (Coleoptera: Curculionidae, Cryptorhynchinae), - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **7**(92): 161-181. – HTML –
(see: http://www.curci.de/?beitrag=92)

Abstract: New observations on taxonomy, biology and ecology of Macaronesian Cryptorhynchinae. 2nd contribution: Canary Islands / La Gomera (Coleoptera: Curculionidae: Cryptorhynchinae), including 204 colour- and 3 SEM-photographs, 9 plates and 13 distribution maps. ***Acalles tolpivorus*** **Germann & Stüben sp. n.,** ***Echinodera praedicta*** **Germann & Stüben sp. n.** and ***Paratorneuma aphroditae*** **Germann & Stüben sp. n.** are described from La Gomera. A further method for collecting subterrestrial Curculionidae, the "method of washed soil", was applied successfully and is presented here. Five additional species - ***Acalles argillosus*** **Boheman, 1837,** ***Acalles silosensis*** **Stüben, 2000,** ***Calacalles pusillus*** **Bahr, 2000,** ***Dendroacalles anagaensis*** **(Stüben, 2000)** and ***Dendroacalles poneli*** **(Stüben, 2000)** - are recorded for the first time from La Gomera. Finally breeding experiments are presented from ***Acalles argillosus*** **Boheman, 1837**, ***Acalles silosensis*** **Stüben, 2000,** ***Acalles tolpivorus*** **Germann & Stüben sp. n.** and ***Dendroacalles poneli*** **(Stüben, 2000)**. With *Sonchus hierrensis* (Pit.) a new host-plant is presented for ***Acalles silosensis*** **Stüben, 2000**. All the new findings trace back to an excursion from 24.12.2004 till 9.1.2005, where 19 Cryptorhynchinae were found in 302 specimens from 30 localities on La Gomera.

[78] **CURCULIO Team (2006):** **D**igital-**W**eevil-**D**etermination for Curculionoidea of West Palaearctic. **Transalpina:** ***Sitona*** (Entiminae: Sitonini), - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **7**(85): 14-20. – HTML –
(see: http://www.curci.de/?beitrag=85)

Abstract: Within the framework of the '**D**igital **W**eevil **D**etermination' project a digital and interactive determination work for the difficult genus ***Sitona*** (Entiminae: Sitonini) is presented now for the first time as a pictorial key in German and English languages. 40 species and 3 subspecies of the northern part of the West Palaearctic region ('Transalpina') from the zoogeographical area north of the Pyrenees, the Alps and the Balkan Mountains were taken into account. The eastern delimitation is taken approximately along the eastern borderlines of the EEC members. Each item of information in the key is given first pictorially and is also given in more detail in the text. In this way, we follow a basic principle of modern entomological and taxonomical work: To see by light-optical microscope exactly what is shown on the screen! Information on the biology and a distribution map for each species complete this work.

[79] **CURCULIO Team (2006):** **D**igital-**W**eevil-**D**etermination der westpläarktischen Curculionoidea. **Transalpina:** ***Sitona*** (Entiminae: Sitonini). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **7**(86): 21-27. – HTML –
(see: http://www.curci.de/?beitrag=86)

Zusammenfassung: Im Rahmen des Projekts "**D**igital **W**eevil **D**etermination" wird erstmalig für die schwierig zu bestimmende Gattung ***Sitona*** (Entiminae: Sitonini) ein digitales und interaktives Bestimmungswerk als „Bilderschlüssel" in Englisch und Deutsch vorgelegt. Es werden 40 Arten und 3 Unterarten des nördlichen Teils der Westpaläarktis („Transalpina") mit dem zoogeographischen Raum nördlich der Pyrenäen, der Alpen und des Balkans berücksichtigt. Die östliche Abgrenzung orientiert sich grob am Verlauf der Ostgrenzen der aktuellen Mitgliedsstaaten der Europäischen Union. Jede Aussage im Schlüssel erfolgt zunächst als Bildinformation und wird erst in zweiter Linie - eher ergänzend - in Textform „übersetzt". Damit folgen wir einem Grundprinzip moderner entomologisch-taxonomischer Arbeiten: Im Lichtmikroskop das sehen, was die digitale Abbildung auf dem Monitor vergleichend bereithält! Bemerkungen zur Biologie und eine Verbreitungskarte zu jeder Art schließen die Arbeit ab.

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[80] **Stüben, P.E. (2007):** Editoria: *Maps of an Insect.* - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **8**: 1-11. -PDF-
https://www.curci.de/?editorial=8&lang=en
https://www.curci.de/?editorial=8&lang=de

[81] **Stüben, P.E. (2007a):** Vorstudien zu einer Revision der westpaläarktischen Torneumatini - Taxonomie, Biologie und Ökologie (Coleoptera: Curculionidae: Cryptorhynchinae).

*Ein Blick unter die Grasnarbe des Lebens. - **SNUDEBILLER**: Studies on taxonomy, biology and ecology of Curculionoidea* **8**(99): 26-126. – HTML –
(see: http://www.curci.de/?beitrag=99)

Abstract: Preliminary studies to a revision of the West Palaearctic 'Torneumatini' - Taxonomy, biology and ecology (Coleoptera: Curculionidae: Cryptorhynchinae); including 943 coloured photographies, 45 plates, 6 SEM photographies and 63 distribution maps. The morphology of the subterranean Torneumatini is presented from a biological and ecological point of view. With regard to a taxonomic-systematic classification and identification of the species, the morphological analysis is focussed on the **structure of the internal sack of the aedeagus (endophallus)** [Tab. Tor.7]. The previous research into Torneumatini is presented, and a new generic and subgeneric classification of the Torneumatini is proposed: **Torneuma** Wollaston 1860 - with the subgenera ***Torneuma*** s. str., ***Subtorneuma*** Hoffmann 1961 (**=** *Torneuma* subg. *Tornatum* Osella 1986 **syn. nov.**) and ***Somodytes*** González 1970 **stat. nov.** -, ***Paratyphloporus*** Solari 1937 **stat. nov.** (**=** *Paratorneuma* Roudier 1956 **syn. nov.**) and ***Pseudotorneuma*** Solari 1937. Lectotypes are designated concerning the following species: ***Paratyphloporus karamani*** **(Formánek 1912)** (originally: *Torneuma*)**,** ***Pseudotorneuma humerosum vaulogeri*** **Normand 1937,** ***Pseudotorneuma subplanum*** **(Desbrochers 1889)** (originally: *Torneuma*)**,** ***Torneuma andreinii*** **A. & F. Solari 1909,** ***Torneuma boiteli*** **Normand 1937,** ***Torneuma championi*** **A. & F. Solari 1909,** ***Torneuma convexiusculum theryi*** **Desbrochers 1889,** ***Torneuma theryi incallidum*** **Normand 1937,** ***Torneuma damryi*** **(Perris 1875)** (originally: *Crypharis*)**,** ***Torneuma deplanatum deplanatum*** **(Hampe 1864)** (originally: *Typhloporus*)**,** ***Torneuma deplanatum oberthueri*** **(Fairmaire 1876)** (originally: *Crypharis*)**,** ***Torneuma deplanatum raymondi*** **(Perris 1870)** (originally: *Crypharis*)**,** ***Torneuma grouvellei grouvellei*** **Desbrochers 1889,** ***Torneuma longipenne*** **Pic 1910,** ***Torneuma minutum*** **Meyer 1895,** ***Torneuma planidorsum*** **(Fairmaire 1868)** (originally: *Crypharis*)**,** ***Torneuma rosaliae hipponense*** **Normand 1937,** ***Torneuma rosaliae rosaliae*** **(Rottenberg 1871)** (originally: *Crypharis*), ***Torneuma sardoum*** **Desbrochers 1989,** ***Torneuma strigirostre*** **(Fairmaire 1873)** (originally: *Crypharis*) and ***Torneuma tuniseum attenuatum*** **Normand 1937**. The following neotypes are fixed: ***Torneuma convexiusculum convexiusculum*** **(Fairmaire 1873)** (originally: *Crypharis*)**,** ***Torneuma robustum*** **(Dieck 1869)** (originally: *Crypharis*), ***Torneuma siculum*** **Ragusa 1881** und ***Torneuma tingitanum*** **(Dieck 1869)** (originally: *Crypharis*). All taxa synonymized previously were checked again, and the following synonyms were substantiated: ***Paratyphloporus besucheti*** **(González 1966) (=** *Paratorneuma mallorcense* Stüben 2005 **syn. nov.),** ***Torneuma caecum*** **Wollaston 1860 (**= *Torneuma brincki* Roudier 1965), ***Torneuma convexiusculum theryi*** **Desbrochers 1889 (=** *Torneuma theryi incallidum* Normand 1937 **syn. nov. =** *Torneuma rectirostris* Hoffmann 1956 **syn. nov.),** ***Torneuma deplanatum deplanatum*** **(Hampe 1864) (=** *Crypharis planidorsis* Fairmaire 1868 **=** *Baridius setiferus* Brisout 1870 **=** *Crypharis rosaliae* Rottenberg 1871 **syn. nov. =** *Torneuma andreinii* A. & F. Solari 1909 **syn. nov. =** *Torneuma championi* A. & F. Solari 1909 **=** *Torneuma rosaliae hipponense* Normand 1937 **syn. nov.),** ***Torneuma deplanatum raymondi*** **(Perris 1870) (**= *Torneuma sardoum* Desbrochers 1989 **syn. nov.),** ***Torneuma robustum*** **(Dieck 1869) (=** *Crypharis tingitana* Dieck 1869 **syn. nov. =** *Crypharis strigirostris* Fairmaire 1873 **syn. nov.),** ***Torneuma syriacum simoni*** **Meyer 1895 (**= *Torneuma syriacum diversum* Osella 1986 **syn. nov.)** and ***Torneuma tuniseum*** **F. Solari 1937 (=** *Torneuma tuniseum attenuatum* Normand 1937 **syn. nov. =** *Torneuma rugosum* Normand 1937 **syn. nov.).** The following nine species were described as new: ***Paratyphloporus ericeensis*** **spec. nov.,** ***Paratyphloporus feloi*** **spec. nov.,** ***Torneuma baeticum*** **spec. nov.,** ***Torneuma curtulum vastum*** **spec. nov.,** ***Torneuma deplanatum abbazzii*** **spec. nov.,** ***Torneuma deplanatum teuladense*** **spec. nov.,** ***Torneuma grouvellei liguricum*** **spec. nov.,** ***Torneuma ficuzzense*** **spec. nov.** and ***Torneuma serpentinum*** **spec. nov.** 57 of 60 valid species from the West Palaearctic region are redescribed in words and illustrations. Unknown to me are the three Algerian species *Crypharis longicollis* Tournier 1874, *Torneuma siculum elegantulum* Normand 1937, and *Crypharis subterranea* Fairmaire 1873. They have to be listed as incertae sedis. Finally, the species of the tribe 'Torneumatini' are presented in a **pictorial key** with English and German comments.

[82] **Stüben, P.E. (2007b):** Neue Erkenntnisse zur Taxonomie, Biologie und Ökologie der Cryptorhynchinae von den Makronesischen Inseln. 3. Beitrag: Kanaren / La Palma (Coleoptera: Curculionidae: Cryptorhynchinae). - ***SNUDEBILLER**: Studies on taxonomy, biology and ecology of Curculionoidea* **8**(103): 214 - 244. – HTML –
(see: http://www.curci.de/?beitrag=103)

Abstract: New observations on taxonomy, biology and ecology of Macaronesian Cryptorhynchinae. Third contribution: Canary Islands / La Palma (Coleoptera: Curculionidae: Cryptorhynchinae); including **225** colour- and **15** SEM-photographs, **7** plates and **26** distribution maps are presented. ***Acalles senilis ficvorator*** **spec. nov.** (La Palma) is described. Breeding experiments are presented from ***Dendroacalles euphorbiacus*** (Stüben 2000), ***Acalles hakani tagasaste*** Stüben 2000 and ***Acalles senilis ficvorator***. ***Acalles sonchi*** Stüben 2000 is recorded for the first time from La Palma and with *Sonchus palmensis* (Sch. Bip.) Boulos a new host-plant is presented. New observations on biology and ecology of these species and of ***Acalles pedestris*** Stüben 2000, ***Acalles senilis senilis*** Wollaston 1864, ***Dendroacalles mundus*** (Wollaston 1864), ***Dendroacalles lepidus*** (Kulbe 2000) and ***Echinodera palmaensis*** Stüben 2000 are presented. All the new findings trace back to an excursion from 27.6.2006 till 18.7.2006 (P.E. Stüben & L. Behne), where **21** Cryptorhynchinae were found in **1192** specimens from **54** localities on La Palma. Finally a complete checklist of all findings of the **24** species (Cryptorhynchinae) on La Palma - since the first descriptions - is compiled and maps are presented.

[83] **Bahr, F. & Stüben, P.E. (2007):** Revision des Genus *Ruteria* Roudier, 1954 (Coleoptera: Curculionidae: Cryptorhynchinae). - ***SNUDEBILLER**: Studies on taxonomy, biology and ecology of Curculionoidea* **8**(100): 127-153. – HTML –
(see: http://www.curci.de/?beitrag=100)

Abstract: Revision of the genus *Ruteria* Roudier, 1954 (Coleoptera: Curculionidae: Cryptorhynchinae); with 196 coloured

photographies, 18 plates and 15 distribution maps. The 15 species of the genus *Ruteria* are redescribed and for all species differential diagnoses are presented. A lectotype of *Acalles porcheti* Hoffmann, 1935 is designated. This species doesn't belong to the genus *Ruteria* as hitherto accepted [Stüben 1998c][Wolf 2001], but is really a species of the genus *Onyxacalles* Stüben 1999 and must be ranked among the *Onyxacalles pyrenaeus* group. The taxa ***Ruteria tyrrhenica* (Caldara, 1978)** and ***Ruteria bellieri epirica* Wolf, 2001** could be synonyms of ***Ruteria bellieri bellieri* (Reiche, 1860)** and ***Ruteria kakhetica* Savitsky, 1997** could be a synonym of ***Ruteria hyrcanica* Savitsky, 1997**. But a clear allocation of one of these species is, however, still impossible only by using 'morphological' characters. Here any differential diagnosis is reliant on an integrative taxonomy combining DNA taxonomy, morphology and cross-breedings, which will be done over the next years. Relevant external characters and the male genitalia of all discussed taxa are illustrated. Moreover, a new diagnostic key allows the identification of all species of the genus *Ruteria*.

[84] **CURCULIO Team (2007): D**igital-**W**eevil-**D**etermination for Curculionoidea of West Palaearctic. ***Baris / Limnobaris*** (Baridinae: Baridini), - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **8**(97): 12-18. – HTML –
(see: http://www.curci.de/?beitrag=97)

Abstract: Digital-Weevil-Determination for Curculionoidea of West Palaearctic. Transalpina: Baris / Limnobaris (Baridinae: Baridini) including 461 coloured photographies and 41 distribution maps. In the framework of the '**D**igital **W**eevil **D**etermination' project a digital and interactive determination work for the difficult genera **Baris / Limnobaris** (Baridinae: Baridini) is presented to you now for the first time as a pictorial key in German and English language. 40 (sub-)species of the northern part of the West Palaearctic region ('Transalpina') from the zoogeographical area north of the Pyrenees, the Alps and the Balkan Mountains were taken into account. The eastern delimitation is orientated approximately along the eastern borderlines of the EEC members. Each information in the key is firstly given as a pictorial information and is also - more additionally - 'translated' into text. By this, we follow a basic principle of modern entomological and taxonomical work: To see by light-optical microscope exactly that, what the digital picture is keeping ready on the screen! Information on the biology and a distribution map for each species are completing this work.

[85] **CURCULIO Team (2007): D**igital-**W**eevil-**D**etermination der westpläarktischen Curculionoidea. ***Baris / Limnobaris*** (Baridinae: Baridini). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **8**(98): 19-25. – HTML –
(see: http://www.curci.de/?beitrag=98)

Zusammenfassung: Im Rahmen des Projekts „**D**igital **W**eevil **D**etermination" wird erstmalig für die schwierig zu bestimmende Gattungen **Baris / Limnobaris** (Baridinae: Baridini) ein digitales und interaktives Bestimmungswerk als „Bilderschlüssel" in englischer und deutscher Sprache vorgelegt. Es werden 40 (Unter-)Arten des nördlichen Teils der Westpaläarktis („Transalpina") mit dem zoogeographischen Raum nördlich der Pyrenäen, der Alpen und des Balkans berücksichtigt. Die östliche Abgrenzung orientiert sich grob am Verlauf der Ostgrenzen der aktuellen Mitgliedsstaaten der Europäischen Union. Jede Aussage im Schlüssel erfolgt zunächst als Bildinformation und wird erst in zweiter Linie - eher ergänzend - in Textform „übersetzt". Damit folgen wir einem Grundprinzip moderner entomologisch-taxonomischer Arbeiten: Im Lichtmikroskop das sehen, was die digitale Abbildung auf dem Monitor vergleichend bereithält! Bemerkungen zur Biologie und eine Verbreitungskarte zu jeder Art schließen die Arbeit ab.

2008

[86] **Stüben, P.E. (2008):** Editorial. *SNUDEBILLERonline* - a milestone towards the interactive publication of the CURCULIO-Institute! - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **9**: 1-10. – PDF –

[87] **Stüben, P.E. (2008):** Neubeschreibungen westpaläarktischer Crpytorhynchinae **II** - Key to the species of the genus *Echinodera* of the Westpalaeartic (Coleoptera: Curculionidae), - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **9**(110): 80-112. – HTML –
(see: http://www.curci.de/?beitrag=110)

Abstract: Description of new species of Cryptorhynchinae from the westpalaearctic region II - Key to the species of the genus *Echinodera* of the Westpalaeartic (Coleoptera: Curculionidae); with 328 colour- and 14 SEM-photographs, 14 plates and 41 distribution maps. ***Acalles biokovoensis* Stüben sp.n.** (Croatia), ***Echinodera adriatica* Stüben sp.n.** (Croatia), ***Echinodera corcyrensis* Stüben sp.n.** (Greece, Croatia), ***Echinodera aspromontensis* Stüben sp.n.** (Italy), ***Echinodera bulbosa* Stüben & Astrin sp.n.** (Spain), ***Elliptacalles baeticus* Stüben sp. n.** (Spain), ***Torneuma stanviti* Stüben sp. n.** (Spain), ***Torneuma istanense* Stüben sp. n** (Spain) and ***Torneuma istanense alhaurinense* Stüben ssp. n.** (Spain) are described and distinguished from known species. Relevant external characteristics, the male and female genitals of all discussed taxa are illustrated. Moreover, a new diagnostic key (English / German) allows the identification of all species of the genus *Echinodera* of the Westpalaeartic (not include the species of Northern Africa and Macaronesia).

[88] **Stüben, P.E. (2008):** Analytischer Katalog der westpaläarktischen Cryptorhynchinae / Analytical Catalogue of Westpalearctic Cryptorhynchinae. **Teil 3/Part 3** Cryptorhynchini:

Acallorneuma, *Cryptorhynchus*, *Poggionymus*, *Ruteria,* Camptorhinini: *Camptorhinus,* Gasterocercini: *Gasterocercus*, Torneumatini: *Paratyphloporus*, *Pseudotorneuma*, *Torneuma* (Col.: Curculionidae: Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **9**(109): 28-79. – HTML –
(see: http://www.curci.de/?beitrag=109)

Abstract: The third “Analytical Catalogue of Westpalearctic Cryptorhynchinae" comprises **94** valid taxa belonging to the genera ***Acallorneuma*** **Mainardi 1906, *Cryptorhynchus* Illiger 1807, *Poggionymus* Colonnelli 1983, *Ruteria* Roudier 1954, *Camptorhinus* Schoenherr 1825, *Gasterocercus* Laporte & Brullé 1828, *Paratyphloporus* Solari 1937, *Pseudotorneuma* F. Solari 1937** and ***Torneuma*** **Wollaston 1860**. The name of the species, the author, the year of the first description, all synonyms, information about the type specimens and about the collections in which type material is kept are given. The first description (including figures) and keys to all genera and species of Cryptorhynchinae are presented for the first time (in English and German language). For a quick and easy determination the user of this catalogue will find **1072** colour photographs, drawings and plates. The science history of the species names including sub- and infraspecific names is given. In addition the faunistical data of all valid taxa (**3344** specimens from **870** localities) are compiled, and **86** distribution maps are presented. Data on the ecology and biology of the species and the latest developments in research are given. The catalogue includes a complete bibliography of all species.

[89] **Stüben, P.E. (2008):** Neue Erkenntnisse zur Taxonomie, Biologie und Ökologie der Cryptorhynchinae von den Makronesischen Inseln. 4. Beitrag: Kanaren / El Hierro (Coleoptera: Curculionidae: Cryptorhynchinae), - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **9**(117): 319-338. – HTML –
(see: http://www.curci.de/?beitrag=117)

Abstract: New observations on taxonomy, biology and ecology of Macaronesian Cryptorhynchinae. 4th contribution: Canary Islands / El Hierro (Coleoptera: Curculionidae: Cryptorhynchinae); 212 colour- and 2 SEM-photographs, 6 plates and 14 distribution maps are presented. A new genus and a new species - ***Echinoacalles franzi*** **gen. nov., spec. nov. -** from El Hierro are described. ***Dendroacalles poneli*** (Stüben 2000), from the host-plant *Euphorbia regis-jubae* W. & B., is recorded for the first time from El Hierro. New observations on biology and ecology of this species and of ***Acalles senilis senilis*** Wollaston 1864, ***Acalles muelleri*** Stüben 2000, living on *Tolpis proustii* Pit., and ***Dichromacalles fernandezi*** (Roudier 1954), observed in the stems of the endemic Asteracae *Pericallis murrayi* Nord., are presented. First results of molecular studies on the variable species of ***Echinodera hystrix*** Wollaston 1864 are discussed. All the new findings trace back to an excursion from 22.12. 2006 to 4.1.2007, where **10** Cryptorhynchinae were found in **380** specimens from **27** localities on El Hierro. Finally a complete checklist of all findings of the **13** species (Cryptorhynchinae) of El Hierro - since the first descriptions - is compiled and several distribution maps are given.

[90] **Stüben, P.E. (2008d):** In Memoriam Edmund Wenzel. in: COLEO. Arbeiten und Berichte aus der Coleopterologie: www.coleo.de, (ISSN 1616-3281), No. **9**: 1-6. – PDF –

[91] **CURCULIO Team (2008): D**igital-**W**eevil-**D**etermination for Curculionoidea of West Palaearctic: ***Acalyptus / Ellescus / Dorytomus*** (Curculioninae: Acalyptini & Ellescini). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **9**(107): 11-18. – HTML –
(see: http://www.curci.de/?beitrag=107)

Abstract: Digital-Weevil-Determination for Curculionoidea of West Palaearctic: *Acalyptus* / *Ellescus* / *Dorytomus* (Curculioninae: Acalyptini & Ellescini); including 366 coloured photographies. In the framework of the '**D**igital **W**eevil **D**etermination' project a digital and interactive determination work for the difficult genera ***Acalyptus, Ellescus, Dorytomus*** (Curculioninae: Acalyptini & Ellescini) is presented to you now for the first time as a pictorial key in German and English language. 31 species of the West Palaearctic region (the eastern delimitation is orientated approximately along the eastern borderlines of the EEC members) were taken into account. Each information in the key is firstly given as a pictorial information and is also - more additionally - 'translated' into text. By this, we follow a basic principle of modern entomological and taxonomical work: To see by light-optical microscope exactly that, what the digital picture is keeping ready on the screen! Information on the biology for each species are completing this work.

[92] **CURCULIO Team (2008): D**igital-**W**eevil-**D**etermination der westpaläarktischen Curculionoidea: ***Acalyptus / Ellescus / Dorytomus*** (Curculioninae: Acalyptini & Ellescini). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **9**(108): 19-27. – HTML –
(see: http://www.curci.de/?beitrag=108)

Zusammenfassung: Im Rahmen des Projekts „**D**igital **W**eevil **D**etermination" wird erstmalig für die schwierig zu bestimmenden Gattungen ***Acalyptus, Ellescus, Dorytomus*** (Curculioninae: Acalyptini & Ellescini) ein digitales und interaktives Bestimmungswerk als „Bilderschlüssel" in englischer und deutscher Sprache vorgelegt. Es werden 31 Arten der Westpaläarktis berücksichtigt (die östliche Abgrenzung orientiert sich grob am Verlauf der Ostgrenzen der aktuellen Mitgliedsstaaten der Europäischen Union). Jede

Aussage im Schlüssel erfolgt zunächst als Bildinformation und wird erst in zweiter Linie - eher ergänzend - in Textform „übersetzt". Damit folgen wir einem Grundprinzip moderner entomologisch-taxonomischer Arbeiten: Im Lichtmikroskop das sehen, was die digitale Abbildung auf dem Monitor vergleichend bereit hält! Bemerkungen zur Biologie der jeweiligen Art schließen die Arbeit ab.

[93] **Astrin, J.J. & Stüben, P.E. (2008):** Phylogeny in cryptic weevils: molecules, morphology and new genera of Western Palaearctic Cryptorhynchinae (Coleoptera: Curculionidae). in: *Invertebrate Systematics* **22** *(5)*: 503-522. – PDF –

Abstract: A phylogeny is presented for the western Palaearctic representatives of the weevil subfamily Cryptorhynchinae using a combination of phenotypic and genotypic characters. This phylogeny is the first for the extremely species-rich Cryptorhynchinae to use molecular data (mitochondrial CO1 and 16S as well as nuclear ribosomal 28S). The results of this study show the need for molecular tools within this morphologically cryptic group of weevils and provide a scaffold based on which genus assignment can be tested. The present study mostly corroborates the current subdivision into genera (but many of the subgeneric groups are questioned). Three new genera are described: *Montanacalles* gen. nov. (type species: *Kyklioacalles nevadaensis* Stüben, 2001), *Coloracalles* gen. nov. (type species: *Acalles humerosus* Fairmaire, 1862) and *Elliptacalles* gen. nov. (type species: *Acalles longus* Desbrochers, 1892). Relevant external characters and the male genitalia of all discussed taxa are illustrated. Three species are transferred to different genera: *Kyklioacalles aubei* (Boheman, 1837) (formerly: *Acalles*), *Ruteria major* (Solari A. & F., 1907) and *Ruteria minosi* (Bahr & Bayer, 2005) (both formerly *Echinodera*).

[94] **Germann, Ch. & Stüben P.E. (2008):** Sukkulente Pflanzen und Rüsselkäfer auf den Kanarischen Inseln - Nächtliche Einblicke in eine unbekannte Welt komplexer Interaktionen. in: AVONIA **26** (2): 60 - 63. – PDF –

Abstract: Interactions between phytophagous insects and their host plants are among the most fascinating areas in biology. The mega diverse beetle superfamily of weevils or snout beetles contains a high amount of strongly specialised species. On the Canary Islands four members of the subfamily Cryptorhynchinae are presented here with main focus on succulent plants.

[95] **Board of the CURCULIO Institute (2008):** Response to the "Proposed amendment of the International Code of Zoological Nomenclature to expand and refine methods of publication" (ICZN: Zootaxa 1908: 57-67, October 17, 2008) / Stellungnahme zum „Vorschlag der Internationalen Kommission für Zoologische Nomenklatur zur Erweiterung und Spezifizierung von Publikationen" (ICZN: Zootaxa 1908: 57-67, 17. Okt. 2008) in: ***Weevil News***: http://www.curci.de/Inhalt.html, No. **43**: 4 pp., CURCULIO-Institute: Mönchengladbach. (ISSN 1615-3472). (Authors/Initiators: Stüben, P.E., Sprick, P. & Bayer, Ch.) – HTML –
(see: http://www.curci.de/?beitrag=130)

2009

[96] **Stüben, P.E. (2009):** Neubeschreibungen westpaläarktischer Crpytorhynchinae **III** - (Coleoptera: Curculionidae) - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **10**(124): 94-106. – HTML –
(see: http://www.curci.de/?beitrag=124)

Abstract: Description of new species of Cryptorhynchinae from the westpalaearctic region III - (*Torneuma, Echinodera, Acalles*) (Coleoptera: Curclionidae); with 163 colour- and 6 SEM-photographs, 9 plates and 8 distribution maps. Three new (sub-)species of the weevil genus *Torneuma* Wollaston 1860 from Morocco and the southern Spain are described: ***Torneuma troglodytis*** n.sp., ***Torneuma torresi*** n.sp.and ***Torneuma mesegueri lineaensis*** n.ssp. The small size and the tubular and flattened body shape as well as the reduction of the eyes, which are totally absent, are a common character among the edaphic and troglodytic species. A pictoral catalogue for the identification of all known 'long-nosed' *Torneuma* is provided. Moreover two other Cryptorhynchinae of the Westpalaearctic are described: ***Echinodera*** (Dieckmannia) ***nuraghia*** sp.n. (Italy: Sardinia) and ***Acalles alcarazensis*** sp.n. (Spain). Detailed descriptions, including photographs of holotypes and their aedeagi, are based on molecular data and supplemented with remarks on diagnostic features comparing the species to similar or related taxa.

[97] **Stüben, P.E. (2009):** ***Tree*Climbers.** *Dendroacalles, Silvacalles* and *Lauriacalles* of the Canary Islands (Curculionidae: Cryptorhynchinae). - English / German - , in: **Stüben, P.E. & Fabian, K. & Astrin J.J. (Ed., 2009):** ***Tree*Climbers**: 18-37. – PDF –

Abstract: Three genera of the tree-living Cryptorhynchinae, so-called ***tree*climbers**, are presented here. These and their species are distinguished in a 'Key to the genera and species of the Canarian *Tree*Climbers'. *Dendroacalles fortunatus* (Wollaston 1864) from La Gomera is restored ex the 'synonymisation' with *Dendroacalles ornatus* (Wollaston 1853) from Madeira by molecular analysis. Finally, the biology and ecology of the taxa presented are discussed in detail.

[98] **Stüben, P.E. & Skuhrovec, J. (2009):** Editorial. A Neolithic Counter-revolution? (English/German) - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **10**: 1-12. – PDF –

[99] **Stüben, P.E. & Astrin, J.J. (2009):** Neue Erkenntnisse zur Taxonomie, Biologie und Ökologie der Cryptorhynchinae von den Makronesischen Inseln. **5.** Beitrag: Madeira / Porto Santo / Desertas / Selvagens (Coleoptera: Curculionidae: Cryptorhynchinae) - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **10**(122): 48-86. – HTML –
(see: http://www.curci.de/?beitrag=122)

Abstract: New observations on taxonomy, biology and ecology of Macaronesian Cryptorhynchinae. 5th contribution: Madeira / Porto Santo / Desertas / Selvagens (Coleoptera: Curculionidae: Cryptorhynchinae); 395 colour- and 2 SEM-photographs, 45 plates and 30 distribution maps are presented. The following synonym was substantiated: ***Madeiracalles pulverosus*** (Gemminger 1871) = *Acalles oblitus* Wollaston 1854 **nov. syn.** [ICZNart. 23.9.1]. New observations on biology and ecology are presented: ***Madeiracalles machadoi*** (Stüben 2006) from the host-plant *Cytisus scoparius* (L.) introduced from Europe and ***Madeiracalles cinereus*** (Wollaston 1860) from a new isolated location of big trees of *Euphorbia mellifera* Ait. A molecular phylogeny is presented for the species of the genera *Madeiracalles* and *Torneuma*, particularly with regard to ***Madeiracalles pulverosus*** (Gemminger 1871) and ***Madeiracalles portosantoensis*** (Stüben 2002). The following biomolecular emendation is given: ***Madeiracalles achadagrandensis*** (Stüben 2002) **nov. stat.** The morphological variability of ***Madeiracalles terminalis*** (Wollaston 1854) is discussed. The circumstances of the discovery are given for two notable by-catches, ***Barretonus minor*** Folwaczny 1972 and ***Anillobius solifuga*** Fauvel 1908, and for the first time photographs of their habitus, male and female genitalia are introduced. The type specimens of ***Barretonus minor*** Folwaczny 1972, ***Barretonus hinterseheri*** Folwaczny 1972 and ***Barretonus desertae*** Roudier 1958 are compared. All the new findings trace back to a field trip (P. E. Stüben & J. J. Astrin) from 15. - 29. 3. 2008, during which **18** Cryptorhynchinae were found in **126** specimens from **20** localities on Madeira and Porto Santo. Finally, for all **28** species (Cryptorhynchinae) of the Madeira archipelago and Selvagens a complete checklist of all findings - since the first descriptions - is compiled and a distribution map is given for every valid species. For the first time digital tomographies of all **28** species (habitus/aedeagus) are shown.

[100] **[97] Stüben, P.E. & Fabian, K. & Astrin J.J. (Ed., 2009):** ***Tree*Climbers.** *Dendroacalles, Silvacalles* and *Lauriacalles* of the Canary Islands (Curculionidae: Cryptorhynchinae). Mönchengladbach: CURCULIO-Institute, illustrated book (landscape format: 39 x 30 cm), 41 pp. – PDF –

The ***Tree*Climbers** s.l. comprise the exclusively tree-living Cryptorhynchinae (Coleoptera: Curculionidae) that are found mainly in the western Canary Islands. Klaus Fabian was asked to portray these colourful and bizarrely-bristled acrobats of the higher strata and canopies of the Canarian and - only two species - Madeiran laurel forest. At the beginning there was 'curiousness (if it might succeed) **and** fascination', because for the coleopterologist who was used to shifting the small number of Central European species of *Acalles* from the leaf litter of the native beech and oak forest, it was a big surprise to begin the subtle hunt in the moist, shady and evergreen forest of the thermo-canarian belt. This was more than ten years ago and it required the development of new techniques like beating with long stakes into huge beating trays to explore the Cryptorhynchinae fauna of the canopies. So-called, 'canopy fogging' with natural pyrethrum, a method which we applied on the Canary Islands in autumn 2008 for the first time (see above), seemed much more promising and effective. Where the forest was not felled in the past – as in the national park of Garojonay on La Gomera – old and huge trees are located between large and impressive roots, evoking an unearthly atmosphere during the night. This is the real homeland of the ***Tree*Climbers**. In such habitats the specimens can be beaten in large numbers from the metres-long shoots growing from the base of the tree and the roots of the Lauraceae. From the phylogenetical point the ***Tree*Climbers** are highly derived 'taxa' and, ecologically, these groups are extreme tree-specialists which colonized a very old habitat, the '*laurisilva*', only in the recent geological history. In this illustrated book we want to build a bridge between art, morphology and molecular biology - an attempt to understand entomology as art ***and*** science again … 41 pages with 15 drawings, 105 colour photographies, 19 distribution maps and 7 tables.

[101] **CURCULIO Team (2009):** **D**igital-**W**eevil-**D**etermination for Curculionoidea of West Palaearctic: ***Acalyptus Isochnus* / *Orchestes* / *Pseudorchestes* / *Rhamphus* / *Rhynchaenus* /**

Tachyerges (Curculioninae: Rhamphini). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **10**(119): 13-25. – HTML –
(see: http://www.curci.de/?beitrag=119)

Abstract: In the framework of the '**D**igital **W**eevil **D**etermination' project a digital and interactive determination work for the difficult genera ***Isochnus, Orchestes, Pseudorchestes, Rhamphus, Rhynchaenus*** and ***Tachyerges*** (Curculioninae: Rhamphini) is presented for the first time as a pictorial key in German and English language. 49 species of the West Palaearctic region (the eastern delimitation is orientated approximately along the eastern borderlines of the EU members) were taken into account. Each information in the key is firstly given as a pictorial information and is also - more additionally - 'translated' into text. By this, we follow a basic principle of modern entomological and taxonomical work: To see by light-optical microscope exactly that, what the digital picture is keeping ready on the screen! Information on the biology for every species are completing this work. Taxonomical changes: A lectotype of *Orchestes flavipes* Desbrochers 1884 is designated. The following synonyms are established: *Pseudorchestes persimilis* (Reitter 1911) = *Rhynchaenus otini* Hustache 1939 = *Rhynchaenus persimilis gallicus* Dieckmann 1959 **syn. nov.** and *Orchestes erythropus* (Germar 1821) = *Orchestes tricolor* Kiesenwetter 1851 **syn. nov.** = *Orchestes flavipes* Desbrochers 1884 **syn. nov**.

[102] **CURCULIO Team (2009): D**igital-**W**eevil-**D**etermination der westpaläarktischen Curculionoidea: ***Isochnus* / *Orchestes* / *Pseudorchestes* / *Rhamphus* / *Rhynchaenus* / *Tachyerges*** (Curculioninae: Rhamphini). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **10**(120): 26-38. – HTML –
(see: http://www.curci.de/?beitrag=120)

Zusammenfassung: Im Rahmen des Projekts „**D**igital **W**eevil **D**etermination" wird erstmalig für die schwierig zu bestimmenden Arten der Gattungen ***Isochnus, Orchestes, Pseudorchestes, Rhamphus, Rhynchaenus*** und ***Tachyerges*** (Curculioninae: Rhamphini) ein digitales und interaktives Bestimmungswerk als „Bilderschlüssel" in englischer und deutscher Sprache vorgelegt. Es werden 49 Arten der Westpaläarktis berücksichtigt (die östliche Abgrenzung orientiert sich grob am Verlauf der Ostgrenzen der aktuellen Mitgliedsstaaten der Europäischen Union). Jede Aussage im Schlüssel erfolgt zunächst als Bildinformation und wird erst in zweiter Linie - eher ergänzend - in Textform „übersetzt". Damit folgen wir einem Grundprinzip moderner entomologisch-taxonomischer Arbeiten: Im Lichtmikroskop das sehen, was die digitale Abbildung auf dem Monitor vergleichend bereithält! Bemerkungen zur Biologie der jeweiligen Art schließen die Arbeit ab. Taxonomische Änderungen: Eine Lectotype wird für *Orchestes flavipes* Desbrochers 1884 designiert. Folgende Synonyme werden festgelegt: *Pseudorchestes persimilis* (Reitter 1911) = *Rhynchaenus otini* Hustache 1939 = *Rhynchaenus persimilis gallicus* Dieckmann 1959 **syn. nov.** und *Orchestes erythropus* (Germar 1821) = *Orchestes tricolor* Kiesenwetter 1851 **syn. nov.** = *Orchestes flavipes* Desbrochers 1884 **syn. nov**.

[103] **Astrin, J.J. & Stüben, P.E. (2009):** Molecular phylogeny in 'nano-weevils': description of a new subgenus and two new species of *Calacalles* from the Macaronesian Islands (Curculionidae: Cryptorhynchinae). - *Zootaxa* 2300: 51–67. – PDF –

Abstract: A molecular phylogeny for the eastern Atlantic weevil genus *Calacalles* Peyerimhoff, 1925 is presented, using two mitochondrial genes (CO1 and 16S). Based on a phylogenetic (Bayesian) analysis, we propose the following taxonomic amendments: the new subgenus *Nanoacalles* subg. n. is described and two new species, *Calacalles hermigua* sp. n. and *Calacalles nataliae* sp. n., are described from the Canarian island La Gomera and distinguished from other species of the genus. *Calacalles palmensis* (Roudier, 1954) (formerly *Acalles wollastoni palmensis* Roudier, 1954), which is illustrated here for the first time (habitus and aedeagus), is not a synonym of *Acalles seticollis* Wollaston, 1864, but a valid taxon. *Calacalles subcarinatus* (Israelson, 1984) from the Azores is assigned to the subgenus *Crateracalles* Stuben 2004. We also present a catalogue of all known *Calacalles* species

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[104] **Stüben P. E. (2010):** *Kyklioacalles oukaimedensis* sp.n. (Coleoptera: Curculionidae: Cryptorhynchinae). - WEEVIL *NEWS*: http://www.curci.de/Inhalt & WEEVIL *NEWS* (printable version) **48** (1 January 2010): 2 pp., CURCULIO-Institute: Mönchengladbach. – PDF –
(see: http://www.curci.de/?beitrag=157)

Abstract: A new species of the weevil genus *Kyklioacalles* Stüben 1999 from Morocco is described and is distinguished from *Kyklioacalles maroccensis* Stüben 2001; with 2 figures.

[105] **Stüben, P.E. (2010):** Descriptions of westpalaearctic Cryptorhynchinae **IV** (Coleoptera: Curculionidae). - *Kyklioacalles oukaimedensis* in the High Atlas of Morocco, with a key to the species of *Kyklioacalles* from North Africa (English / German) - ***SNUDEBILLER****: Studies on*

taxonomy, biology and ecology of Curculionoidea **11**(152): 10-16. – HTML –
(see: http://www.curci.de/?beitrag=152)

Abstract: A species of the weevil genus ***Kyklioacalles*** Stüben 1999 from Morocco is redescribed and distinguished from another species of the genus: ***Kyklioacalles maroccensis* (Stüben 2001).** More detailed information on the characters of the new species and on the differential diagnosis is at first given as a pictorial information, following the basic principle of modern entomological and taxonomic work: To see by light-optical microscopy exactly what the digital picture keeps ready on the screen. Detailed photo descriptions, including photographs of the holotype and the related taxa, the aedeagus, endophallus and the female genitalia are presented. The description based on molecular data of the mitochondrial genes and a core gene (CO1, 16S and 28S). Finally, the **13** species of *Kyklioacalles* from North Africa will be introduced in an interactive and richly illustrated key, and for 6 species **DNAtypes** are designated here **for the first time.** Languages: English and German.

[106] **Stüben P. E. (2010):** *Echinodera diottii* sp.n. (Coleoptera: Curculionidae: Cryptorhynchinae). - WEEVIL *NEWS*: http://www.curci.de/Inhalt & WEEVIL *NEWS* (printable version) **49** (1 February 2010): 2 pp., CURCULIO-Institute: Mönchengladbach. – PDF –
(see: http://www.curci.de/?beitrag=158)

Abstract: A new species of the weevil genus *Echinodera* Wollaston 1863 from Italy (Pantelleria Island) is described and distinguished from *Echinodera capbonensis* Stüben 2002; with 2 figures.

[107] **Stüben, P.E. (2010):** Beschreibung westpaläarktischer Cryptorhynchinae **V** - *Echinodera diotti* von der Insel Pantelleria (Italien), mit einem Bilderschlüssel der nordafrikanischen *Echinodera* (incl. a pictoral key to the species of *Echinodera* from North Africa) - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **11**(153): 17-26. – HTML –
(see: http://www.curci.de/?beitrag=153)

Abstract: Descriptions of westpalaearctic Cryptorhynchinae V - *Echinodera diotti* from Pantelleria Island (Italy), incl. a pictorial key to the species of *Echinodera* from North Africa; with 455 colour and 9 SEM photographs, 66 tables, 16 maps. A species of the weevil genus *Echinodera* Wollaston 1863 from the small Island of Pantelleria (Strait of Sicily, Italy) is redescribed and distinguished in detail from three other species of the genus: ***Echinodera capbonensis* Stüben 2004** (Tunisia), ***Echinodera siciliensis* Stüben 2001** and ***Echinodera ibleiensis* Stüben 2001** (both from Italy). More detailed information on the characters of the new species, which is related to the species of North Africa, and on the differential diagnosis is at first given as image information. Detailed photo descriptions, including photographs of the holotype and the related taxa are presented. The description is based on molecular data of the mitochondrial genes (CO1, 16S). Finally, distribution maps are presented for *Echinodera* species from North Africa and they are introduced (incl. photos of most of the holotypes) in an interactive and richly illustrated pictorial key for the first time - in English and German. **DNAtypes** are designated for 16 species.

[108] **Stüben, P.E. (2010):** *Echinodera (Ruteria) cyprica* sp.n. (Coleoptera: Curculionidae: Cryptorhynchinae). - WEEVIL *NEWS*: http://www.curci.de/Inhalt & WEEVIL *NEWS* (printable version) **52** (1 July 2010): 2 pp., CURCULIO-Institute: Mönchengladbach. – PDF –
(see: http://www.curci.de/?beitrag=161)

Abstract: A new species of the weevil genus *Echinodera* (*Ruteria*) Wollaston 1863 is described from Cyprus and distinguished from the related species ***Echinodera* (*Ruteria*) *minosi* Bahr & Bayer 2005** and ***Echinodera* (*Ruteria*) *major* (A. & F. Solari 1907)**; with 5 figures.

[109] **Stüben, P.E. (2010):** *Bagous monanthiphagus* sp.n. (Coleoptera: Curculionidae: Bagoinae). - WEEVIL *NEWS*: http://www.curci.de/Inhalt & WEEVIL *NEWS* (printable version) **54** (1 August 2010): 2 pp., CURCULIO-Institute: Mönchengladbach. – PDF –
(see: http://www.curci.de/?beitrag=163)

Abstract: A new species of the weevil genus *Bagous* Germar 1817 is described from the Canary Islands (La Gomera). This species is distinguished from the related species ***Bagous subruber* Reitter 1890** (Mediterranean area, Saudi Arabia, Iraq, Iran); with 8 figures.

[110] **Stüben, P.E. (2010):** *Calacalles* (*Nanoacalles*) *mulagua* sp.n. (Coleoptera: Curculionidae: Cryptorhynchinae). - WEEVIL *NEWS*: http://www.curci.de/Inhalt & WEEVIL *NEWS* (printable version) **57** (1 October 2010): 2 pp., CURCULIO-Institute: Mönchengladbach. – PDF –
(see: http://www.curci.de/?beitrag=166)

Abstract: A new species of the weevil genus *Calacalles* (*Nanoacalles*) Peyerimhoff, 1925 is described and distinguished from the related species ***Calacalles pumilio* Bahr 2000** and ***Calacalles atomarius* Bahr 2000** from Tenerife (Spain: Canary Island). The species is different to ***Calacalles hermigua* Stüben & Astrin 2009** and ***Calacalles nataliae* Astrin & Stüben 2009** from the same type locality on La Gomera (El Palmar); with 6 figures.

[111] **Stüben, P.E. (2010):** *Calacalles* (*Nanoacalles*) *agana* sp.n. (Coleoptera: Curculionidae: Cryptorhynchinae). - WEEVIL *NEWS*: http://www.curci.de/Inhalt & WEEVIL *NEWS* (printable version) **58** (1 October 2010): 2 pp., CURCULIO-Institute: Mönchengladbach. – PDF – (see: http://www.curci.de/?beitrag=167)

Abstract: A new species of the weevil genus *Calacalles* (*Nanoacalles*) Peyerimhoff, 1925 from the island of La Gomera in the Canaries (Spain) is described. This species is distinguished from the related species ***Calacalles atomarius* Bahr 2000** (Tenerife) and the other five species from La Gomera; with 8 figures.

[112] **Stüben, P.E. (2010):** *Torneuma bensusani* sp.n. (Coleoptera: Curculionidae: Cryptorhynchinae). - WEEVIL *NEWS*: http://www.curci.de/Inhalt & WEEVIL *NEWS* (printable version) **59** (1 December 2010): 2 pp., CURCULIO-Institute: Mönchengladbach. – PDF – (see: http://www.curci.de/?beitrag=168)

Abstract: A new species of the weevil genus *Torneuma* Wollaston 1860 is described from Gibraltar and distinguished from some other related species of the *Torneuma deplanatum* group from Italy, Corfu and North Africa; with 5 figures.

[113] **Stüben, P.E. & Astrin, J.J. (2010):** Molecular phylogeny in endemic weevils: revision of the genera of Macaronesian Cryptorhynchinae (Coleoptera, Curculionidae). *Zoological Journal of the Linnean Society,* **160**: 40-87. – PDF –

Abstract: A molecular phylogeny and lineage age estimates are presented for the Macaronesian representatives of the weevil subfamily Cryptorhynchinae, using two mitochondrial genes (cytochrome *c* oxidase subunit 1 and 16S). The Bayesian reconstruction is supplemented by observations on morphology, ecology, and reproductive biology. The present study often corroborates the groups previously outlined in higher-level informal taxonomies. These and further groups are now assigned new taxonomic status. The following genera and subgenera are described (formerly *Acalles*): ***Aeoniacalles* gen. nov.**, ***Canariacalles* gen. nov.**, ***Ficusacalles*gen. nov.**, ***Madeiracalles* gen. nov.**, ***Silvacalles* gen. nov.** (with ***Tolpiacalles* subgen. nov.**, ***Tagasastacalles* subgen. nov.**), ***Sonchiacalles*gen. nov.**, ***Echiumacalles* gen. nov.** (monotypic), ***Lauriacalles* gen. nov.** (monotypic), and ***Pseudodichromacalles* gen. nov.** (monotypic; formerly *Dichromacalles*). For the western Palaearctic genus *Acalles* Schoenherr, 1825 the first subgenus ***Origoacalles* subgen. nov.** is described and for the genus *Onyxacalles* Stüben, 1999 the first subgenus ***Araneacalles* subgen. nov.**; *Paratorneuma* Roudier 1956 resyn. Except for one species of *Acalles* (*Origoacalles*), all of these new higher taxa are endemic to the Macaronesian Islands. All new taxa are presented, together with their host plants and further data, in a synoptic tabular overview. Based on the results of our phylogenetic analysis, we advocate the hypothesis that the evolution of the species in the new genera (of which most group into a 'Macaronesian clade') began in the comparatively arid succulent bush zone and that the shady and humid laurel forest of the thermo-Canarian and thermo-Madeiran zone was entered much later. Our reconstruction implies that the Canarian and Madeiran archipelagos were colonized by Cryptorhynchinae at least seven times from the continent but saw only one considerable adaptive radiation. It also becomes apparent that it is the ancestor species of the genus *Canariacalles*– and not *Pseudodichromacalles*– that features a close connection to the south-western European and north-western African species of *Dichromacalles s.s*. Finally, a key is presented for all genera and subgenera of the Macaronesian Cryptorhynchinae.

[114] **Stüben, P.E. & Astrin, J.J. (2010):** Molecular phylogeny of the weevil genus *Kyklioacalles* Stüben, with descriptions of a new subgenus *Glaberacalles* and two new species (Curculionidae: Cryptorhynchinae). - *Zootaxa* 2662: 28-52. – PDF –

Abstract: A molecular phylogeny of the western Palearctic weevil genus *Kyklioacalles* Stüben, 1999 is presented, combining two mitochondrial genes (CO1 and 16S) in a Bayesian analysis. Based on molecular data, the validity of the subspecies *Kyklioacalles punctaticollis punctaticollis* (Lucas 1849) and *Kyklioacalles punctaticollis meteoricus* (Meyer 1909) is discussed and the morphological differentiation of the endophalli and known distributions of both subspecies are verified. *Glaberacalles* **subg. n.** (formerly *Kyklioacalles punctaticollis* group) and two new species are described, *Kyklioacalles atlasicus* **sp.n.** from Morocco and *Kyklioacalles plantapilosus* **sp.n.** from Spain. *Kyklioacalles berberi* (Stüben, 2005), **comb. n.** and *Kyklioacalles olcesei* (Tournier, 1873) **comb. n.** are transferred from *Acalles* Schoenherr. The molecular results further advocate a transfer of *Onyxacalles pyrenaeus* (Boheman, 1844) to *Kyklioacalles*; however this is not supported by morphological evidence. *Kyklioacalles almadensis* Stüben, 2004 **syn. n.** (Spain) is syninymized with *Kyklioacalles bupleuri* Stüben, 2004 (Tunisia). A catalogue of all 40 (sub-)species of *Kyklioacalles* is given and a key of the species of the subgenus *Glaberacalles* is presented.

[115] **Stüben, P.E. & Behne, L. (2010):** *Hemitrichapion gomerense* sp.n. (Coleoptera: Curculionoidea: Apionidae). - WEEVIL *NEWS*: http://www.curci.de/Inhalt & WEEVIL *NEWS*

(printable version) **53** (***12 July 2010***): 3 pp., CURCULIO-Institute: Mönchengladbach. – PDF –
(see: http://www.curci.de/?beitrag=162)

Abstract: A new species of the weevil genus *Hemitrichapion* (*Lotapion*) Voss 1959 is described from the Canary Islands (La Gomera). This species is distinguished from the related species ***Hemitrichapion* (*Lotapion*) *wollastoni* Chevrolat 1852** from Madeira (a simultaneous designation of a lectotype is given by Morris & Stüben (Morris in press)) and ***Hemitrichapion (Lotapion) wagneri* (Flach 1906)** from Spain and Portugal. *Apion rotundipennis* Wollaston 1854 is not a synonym of *Apion wollastoni* Chevrolat 1852; with 9 figures.

[116] Stüben, P.E. / Behne, L. / Floren, A. / Günther, H. / Klopfstein, S. / López, H. / Machado, A. / Schwarz, M. / Wägele, J.W. / Wunderlich, J. & Astrin, J.J. (2010): Canopy Fogging in the Canarian *laurel forest* of Tenerife and La Gomera. - WEEVIL *NEWS*: http://www.curci.de/Inhalt & WEEVIL *NEWS* (printable version) **51** (1. May 2010): 21 pp., CURCULIO-Institute: Mönchengladbach. – PDF –
(see: http://www.curci.de/?beitrag=160)

Abstract: We describe the first inventory of canopy arthropods using the fogging method on the Canary Islands. Samples were taken at seven localities (41 individual foggings) on Tenerife and on La Gomera. The following groups of arthropods have been analyzed: Coleoptera, Ichneumonidae (Hymenoptera), Heteroptera, Orthoptera and Araneae. Species diversity was low or at best moderate in all these groups. Two different explanations for the low species numbers are discussed. For weevils of the subfamily Cryptorhynchinae, fogging results are contrasted with those obtained by handcollecting with a beating sheet. It is shown that fogging is less efficient. In Ichneumonidae, a new species, *Gelis gomerensis* Schwarz sp. n., is described from La Gomera and distinguished from other species of the genus. Further taxonomic changes in Ichneumonidae are proposed: *Megastylus canariensis* Rossem stat. nov. and *Himertosoma isabelae* (Rey del Castillo) comb. nov. (formerly *Lissonotidea*).

[117] CURCULIO Team (2010): Digital-**W**eevil-**D**etermination for Curculionoidea of West Palaearctic: **Transalpina: *Tychius*** (Curculioninae: Tychinii). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **11**(149): 27-39. – HTML –
(see: http://www.curci.de/?beitrag=149)

Abstract: In the framework of the '**D**igital **W**eevil **D**etermination' project a digital and interactive determination work for the genus ***Tychius*** (Curculioninae: Tychiini) is presented for the first time as a pictorial key in English and German language. 49 species of the West Palaearctic region "Transalpina" (the eastern delimitation is orientated approximately along the eastern borderlines of the EU members) were taken into account. Each information in the key is firstly given as a pictorial information and is also - more additionally - 'translated' into text. By this, we follow a basic principle of modern entomological and taxonomical work: To see by light-optical microscope exactly that, what the digital picture is keeping ready on the screen. Informations on the biology for every species are completing this work.

[118] CURCULIO Team (2010): Digital-**W**eevil-**D**etermination der westpaläarktischen Curculionoidea: **Transalpina: *Tychius*** (Curculioninae: Tychinii). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **11**(150): 40-53. – HTML –
(see: http://www.curci.de/?beitrag=150)

Zusammenfassung: Im Rahmen des Projekts „**D**igital **W**eevil **D**etermination" wird erstmalig für die Arten des Genus ***Tychius*** (Curculioninae: Tychiini) ein digitales und interaktives Bestimmungswerk als „Bilderschlüssel" in englischer und deutscher Sprache vorgelegt. Es werden 49 Arten der westpaläarktischen Region „Transalpina" berücksichtigt (die östliche Abgrenzung orientiert sich grob am Verlauf der Ostgrenzen der aktuellen Mitgliedsstaaten der Europäischen Union). Jede Aussage im Schlüssel erfolgt zunächst als Bildinformation und wird erst in zweiter Linie - eher ergänzend - in Textform „übersetzt". Damit folgen wir einem Grundprinzip moderner entomologisch-taxonomischer Arbeiten: Im Lichtmikroskop das sehen, was die digitale Abbildung auf dem Monitor vergleichend bereithält! Bemerkungen zur Biologie der jeweiligen Art schließen die Arbeit ab.

[119] Stüben, P.E., Behne, L. & Grebennikov, V.V. (2010): Rüsselkäfer-Gesiebe-Exkursion des CURCULIO-Instituts im Frühjahr 2009 nach Marokko - unter besonderer Berücksichtigung der Cryptorhynchinae-Fauna. (Coleoptera: Curculionoidea) - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **11**(155): 54-79. – HTML –
(see: http://www.curci.de/?beitrag=155)

Abstract: From April 28th to May 15th, 2009, the ninth sifting excursion of the CURCULIO-Institute took place in the western and central parts of Morocco. Biotopes and finding circumstances of many Curculionoidea, in particular of Cryptorhynchinae, are presented, and habitats are described. Finally a complete species list of all collected weevils is given (148 species). Habitus and aedeagus of many species and of such species, that could not be identified, are pictured. With 249 colour photographs, 18 tables and 14 maps.

[120] **Stüben, P.E. & Skuhrovec, J. (2010):** Editorial. SNUDEBILLER - A Research Program of Scientific Illustrations (English/German) - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **11**: 1-9. – PDF –

[121] **Astrin J.J. & Stüben P.E. (2010):** Molecular phylogeny of *Echinodera* and *Ruteria* (Coleoptera: Curculionidae:Cryptorhynchinae) and the parallel speciation of Canary Island weevils along replicate environmental gradients. - *Invertebrate Systematics* **24**: 434–455. – PDF –

Abstract: A molecular phylogeny for the western Palaearctic weevil genus *Echinodera* Wollaston, 1863 and the former genus *Ruteria* Roudier, 1954 is presented, combining two mitochondrial genes (CO1 and 16S) in a Bayesian analysis. Special consideration is given to the species of *Echinodera* from the Canary Islands. Between islands, these are represented by multiple vicariant species that have undergone parallel speciation along replicate environmental gradients on the respective islands. Based on the phylogenetic tree and further data, a number of taxonomic changes is presented: two new species are described, *Echinodera montana*, sp. nov. from the Canaries (Fuerteventura) and *Echinodera bargouensis*, sp. nov. from Tunisia. Five species are declared to be synonyms: *Echinodera gomerensis* Stüben, 2000, syn. nov. = *Echinodera praedicta* Germann & Stüben, 2006, syn. nov. = *Echinodera pseudohystrix* Stüben, 2000; *Ruteria bellieri epirica* Wolf, 2001, syn. nov. = *Echinodera tyrrhenica* Caldara, 1978, syn. nov. = *Acalles bellieri* Reiche, 1860; *Echindera troodosi* Wolf, 2010, syn. nov. = *Echinodera cyprica* Stüben, 2010. The subgenus *Echinodera* (*Dieckmannia*) Stüben, 1998 is a synonym of *Echinodera* s. str. The genus *Ruteria* is again declared a subgenus of *Echinodera*: *Echinodera* (*Ruteria*) Roudier, 1954 stat. rev. Two species are transferred to a different subgenus: *Echinodera* (*Ruteria*) *incognita* (Hoffmann, 1956) and *Echinodera* (*Ruteria*) *cognita* Stüben, 2006 (both formerly *Echinodera* s. str.).

2011

[122] **CURCULIO Team (2011): D**igital-**W**eevil-**D**etermination for Curculionoidea of West Palaearctic: **Transalpina: *Polydrusus*** (Entiminae: Polydrusini). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **12**(173): 11-24. – HTML –
(see: http://www.curci.de/?beitrag=173)

Abstract: In the framework of the '**D**igital **W**eevil **D**etermination' project a digital and interactive determination work for the genus ***Polydrusus*** (Entiminae: Polydrusini) is presented for the first time as a pictorial key in English and German language. The check-list includes 45 (sub-)species from the northern part of West Palaearctic Region ("Transalpina", the zoogeographical area north of the Pyrenees, the Alps and the Balkan Mountains; the eastern delimitation is orientated approximately along the eastern borderlines of the EU members). We did not receive the types or any other specimens of 4 taxa and could not include these in our study. All information in the key is firstly given in a pictorial format and is also - more additionally - 'translated' into text. By this, we follow a basic principle of modern entomological and taxonomical work: To see by light-optical microscope exactly that, what the digital picture is keeping ready on the screen. The following synonyms are given: *Polydrusus* (Piezocnemus) *chaerodrysius* Gredler 1866 = *carinthiacus* (K. & J. Daniel 1898) syn. nov. = *cejkai* Roubal 1928 syn nov. This work includes distribution maps and information on the biology for some species.

[123] **CURCULIO Team (2011): D**igital-**W**eevil-**D**etermination der westpaläarktischen Curculionoidea: **Transalpina: *Polydrusus*** (Entiminae: Polydrusini). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **12**(174): 25-38. – HTML –
(see: http://www.curci.de/?beitrag=174)

Zusammenfassung: Im Rahmen des Projekts „**D**igital **W**eevil **D**etermination" wird erstmalig für die Arten des Genus ***Polydrusus*** (Entiminae: Polydrusini) ein digitales und interaktives Bestimmungswerk als „Bilderschlüssel" in englischer und deutscher Sprache vorgelegt. Es werden 45 Arten der westpaläarktischen Region „Transalpina" berücksichtigt (das zoogeographische Gebiet nördlich der Pyrenäen, der Alpen und der Balkan-Gebirge; die östliche Abgrenzung orientiert sich grob am Verlauf der Ostgrenzen der aktuellen Mitgliedsstaaten der Europäischen Union). Leider haben wir für 4 Taxa weder die Typen noch weiteres Material erhalten. Sie fehlen daher im Schlüssel. Jede Aussage im Schlüssel erfolgt zunächst als Bildinformation und wird erst in zweiter Linie - eher ergänzend - in Textform „übersetzt". Damit folgen wir einem Grundprinzip moderner entomologisch-taxonomischer Arbeiten: Im Lichtmikroskop das sehen, was die digitale Abbildung auf dem Monitor vergleichend bereithält! Folgende Synonyme werden festgelegt: *Polydrusus* (Piezocnemus) *chaerodrysius* Gredler 1866 = *carinthiacus* (K. & J. Daniel 1898) syn. nov. = *cejkai* Roubal 1928 syn nov. Die Arbeit enthält zu jeder Art Verbreitungskarten und zu einigen Arten Informationen zur Biologie.

[124] **Stüben, P.E. (2011a):** Discurso de inauguración de la 1ª Estación Biológica del Instituto CURCULIO en la Gomera, el 18-12-2010. (Coleoptera: Curculionoidea) - German/Spanish. - Weevil *News*: http://www.curci.de, **61**: 4 pp., CURCULIO-Institute: Mönchengladbach. – HTML –
(see: http://www.curci.de/?beitrag=179)

Abstract: Salutatory on the occasion of the 1. Biological Research Center of the CURCULIO-Institute on La Gomera, 18 December 2010 (Coleoptera: Curculionoidea); with 6 figures.

[125] **Stüben, P.E. (2011b):** Eröffnungsrede der 1. Biologischen Station des CURCULIO-Instituts auf La Gomera am 18.12.2010. (Coleoptera: Curculionoidea). - German. - Weevil *News*: http://www.curci.de, **62**: 4 pp., CURCULIO-Institute: Mönchengladbach. – HTML –
(see: http://www.curci.de/?beitrag=180)

Abstract: Salutatory on the occasion of the 1. Biological Research Center of the CURCULIO-Institute on La Gomera, 18 December 2010 (Coleoptera: Curculionoidea); with 6 figures.

[126] **Stüben, P.E., J. L. Torres & J. J. Astrin (2011):** *Kyklioacalles alcornocalensis* sp.n. from Spain (Cádiz) (Coleoptera: Curculionidae: Cryptorhynchinae) - Weevil News: http://www.curci.de, **65**: 5 pp., CURCULIO-Institute: Germany / Mönchengladbach. – PDF –
(see: http://www.curci.de/?beitrag=183)

Abstract: A new species of the western Palearctic weevil genus *Kyklioacalles* Stüben 1999 is described from Cádiz province, southern Spain. This species is distinguished from the related species *Kyklioacalles teter* (Boheman 1844) from Sicily (Italy). The genetic p-distance is given and the new species is included in a molecular phylogeny of *Kyklioacalles* using the mitochondrial COI- and 16S-gene in a Bayesian analysis.

[127] **Stüben, P.E. (2011c):** Neue Erkenntnisse zur Taxonomie, Biologie und Ökologie der Cryptorhynchinae von den Makronesischen Inseln. **6.** Beitrag: Gran Canaria (Coleoptera: Curculionidae: Cryptorhynchinae) - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **12**(176): 57-84. – HTML –
(see: http://www.curci.de/?beitrag=176)

Abstract: New observations on taxonomy, biology and ecology of Macaronesian Cryptorhynchinae. 6. contribution: Gran Canaria (Coleoptera: Curculionidae: Cryptorhynchinae); 214 photographs, 17 plates and 12 distribution maps are presented. New observations on biology and ecology are presented: ***Aeoniacalles grancanariensis*** (Stüben 2000) from the host-plants *Aeonium manriqueorum* Bolle, *Aeonium undulatum* Webb, *Aeonium percarneum* Murr. and *Aeonium balsamiferum* Webb. (Botanical garden, Tafira Alta), ***Dendroacalles (Euphorbioacalles) brevitarsis*** (Wollaston 1864) from its host-plant *Euphorbia obtusifolia* Poir. and ***Silvacalles instabilis*** (Wollaston 1864), normally a species of the Canarian laurisilva, from *Ficus carica* L. New records are given for Gran Canaria: ***Ficusacalles senilis ficvorator*** (Stüben 2007) and ***Dendroacalles* (s.str.) *ruteri*** (Roudier 1954). This last-named species does not exist on La Gomera, as always assumed; therefore ***Dendroacalles fortunatus garajonay* var. nov.** (infrasubspecific rank) is described. It is highly probable that ***Calacalles pusillus*** Bahr 2000 does not exist on Gran Canaria, and - besides *Ferula linkii* Webb - *Foeniculum vulgare* Mill. is presented as a further host-plant of ***Canariacalles alluaudi*** (Uyttenboogart 1940). For all these and their related species (and populations) the genetic p-distance of the mitochondrial COI-gene is given by using distribution maps. The sequences will be published in an upcoming study on the **M**olecular **W**eevil **I**dentification Project (MWI) by the Zoological Museum A. Koenig (ZFMK) and the Curculio Institute (the voucher numbers are presented here, see: Appendix 1). All the new findings trace back to a field trip (P. E. Stüben) from 1. 12. 2010 - 24.1.2011, during which **10** Cryptorhynchinae (of 13 valid species) were found in **285** specimens from **22** localities. Finally, for all **13** species a complete checklist of all findings - since the first descriptions - is compiled and a distribution map is given for every valid species. Digital photos (habitus/aedeagus) are presented by focus stacking for all **13** species.

[128] **Stüben, P.E. & J.J. Astrin (2011):** *Aeoniacalles tabladoensis* sp.n. and *Aeoniacalles aeonii bodegensis* (Stüben 2000) resyn. from the Canary Islands (Coleoptera: Curculionidae: Cryptorhynchinae) - **Weevil *News***: http://www.curci.de, **68**: 5 pp., CURCULIO-Institute: Germany/Mönchengladbach. – PDF –
(see: http://www.curci.de/?beitrag=186)

Abstract: A new species of the Macaronesian weevil genus *Aeoniacalles* Stüben & Astrin 2010 is described from the Canary Island of La Palma. This species is distinguished from the related species *Aeoniacalles aeonisimilis* (Stüben 2010) from La Gomera. A Re-synonymization of *Acalles bodegensis* Stüben 2000 (Tenerife: Anaga Mts.), which is a subspecies of *Aeoniacalles aeonii* (Wollaston 1864), is given. The genetic p-distances of theses species and a molecular phylogeny for all Canarian species of the genus *Aeoniacalles* are presented by a Bayesian analysis using the mitochondrial COI-gene.

[129] **Stüben, P.E. (2011d):** Die Curculionoidea (Coleoptera) La Gomeras - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **12**(177): 85-129. – HTML –
(see: http://www.curci.de/?beitrag=177)

Abstract: The Curculionoidea (Coleoptera) of La Gomera, with 715 photographs, 30 plates and 120 distribution maps. 28 new records of weevils are presented for the Canarian Island *La Gomera*. Digital photos of habitus and aedeagus (dor./ lat.) are given by focus stacking for all **121** species (scrollable, high resolution images (e.g. [Tab. SONson.1]). A complete checklist of all findings

(primarily resulting from a field trip of the author from 1.12.2009 - 28.2.2010 and 5.2. - 26. 2. 2011) is compiled and distribution maps are given for all valid taxa. Finally, notes on each taxon giving taxonomical, ecological, distributional and other information. For 30 species new observations on biology and host plants are presented in large, scrollable images (e.g. [Tab. SILtol]). This illustrated list can be used for a determination of the species and is the first step of an "Encyclopedia of Macaronesian Weevils" presenting on the Internet (Le Charançon) during the year 2012. - A lectotype of ***Ischnopterapion plumbeomicans* (Rosenhauer, 1856)** (Apion) is designated by the author.

[130] **Stüben, P.E. (2011e):** Editorial. The **M**olecular **W**eevil **I**dentification-Project of the CURCULIO-Institute (CURCI, Germany: Mönchengladbach) - in close cooperation with the Zoologisches Forschungsmuseum Alexander Koenig (ZFMK, Germany: Bonn) (English/German) - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **12**: 1-10. – PDF –

2012

[131] **Stüben, P.E. (2012):** Das 7. Internationale Meeting des CURCULIO-Instituts auf La Gomera (Kanarische Inseln) im März 2012 . - Ein Report (Coleoptera: Curculionoidea) - **Weevil *News***: http://www.curci.de **76**: 9 pp., CURCULIO-Institute: Mönchengladbach: 9 S. – HTML – (see: http://www.curci.de/?beitrag=199)

Zusammenfassung: Es wird über das 7. Internationale Meeting vom 4.-11.März auf La Gomera (Kanarische Inseln) berichtet, auf dem sich aus vier Nationen über 20 Entomologen in der Biologischen Station des Curculio Instituts („Casa Diversa“) in Hermigua trafen. Die Referate der Gastredner von den Kanaren werden zusammenfassen dargestellt und die Ergebnisse der zahlreichen Exkursionen vorgestellt. Seit der Veröffentlichung des letzten La Gomera-Katalogs zu den Rüsselkäfern im Dezember 2012 (SNUDEBILLER) konnten auf diesem Treffen 4 weitere Arten als neu für La Gomera gemeldet werden. Von den neuen Arten werden Habitus- und Aedoeagus-Aufnahmen, Verbreitungskarten und Fundumstände vorgestellt. Die Zahl der validen Rüsselkäfer-Taxa beläuft sich heute auf 125 Spezies. Neue Erstbeschreibungen sind in Vorbereitung.

[132] **Stüben, P.E. (2012**): The 7th International Meeting of the CURCULIO Institute on La Gomera (Canary Islands) in March 2012. - A report (Coleoptera: Curculionoidea). - **Weevil *News***: http://www.curci.de; **77**: 9 pp., CURCULIO-Institute: Mönchengladbach: 9 pp. – HTML – (see: http://www.curci.de/?beitrag=200)

Abstract: A report is given on the 7th International Meeting on La Gomera (Canarian Islands) from 4.-11. March. More than 20 entomologists from four nations met in the Biological Research Station of the Curculio Institute (“Casa Diversa“) in Hermigua. The lectures of the guest speakers from the Canaries and the results of the numerous excursions are presented. Since the publication of the recent La Gomera catalogue on weevils in December 2012 (SNUDEBILLER), 4 additional species were recorded for the first time on La Gomera during this meeting. Habitus and aedeagus photos, distribution maps and finding circumstances of the new species are presented. Now there are 125 valid weevil species known from the island and first descriptions are being prepared for several additional species.

[133] **Stüben, P.E. (2012):** *Kyklioacalles flavomaculatus* sp.n. from Morocco (Coleoptera: Curculionidae: Cryptorhynchinae). - **Weevil *News***: http://www.curci.de, **73**, CURCULIO-Institute: Germany / Mönchengladbach: 4 pp. – PDF – (see: http://www.curci.de/?beitrag=196)

Abstract: A new species of the western Palearctic weevil genus *Kyklioacalles* Stüben 1999 is described from Morocco (Moyen Atlas: Jbel Bou Iblane). This species is distinguished from the related species *Kyklioacalles plantapilosus* (Stüben & Astrin 2010) from Spain. The new species is included in a molecular phylogeny of *Kyklioacalles* using the mitochondrial COI- and 16S-gene in a Bayesian analysis, and the genetic p-distances of the COIgene to the closely related species are given in a map.

[134] **Stüben, P.E. (2012):** *Kyklioacalles igualeja* sp.n. from Spain (Málaga) (Coleoptera: Curculionidae: Cryptorhynchinae).- **Weevil *News***: http://www.curci.de, **81**, CURCULIO-Institute: Germany / Mönchengladbach: 4 pp. – PDF – (see: http://www.curci.de/?beitrag=204)

Abstract: A new species of the western Palearctic weevil genus *Kyklioacalles* Stüben 1999 is described from Málaga province, southern Spain. This species is distinguished from the related species *Kyklioacalles alcornocalensis* Stüben 2011 from Spain (Cádiz) *and K. teter* (Boheman 1844) from Italy (Sicily). The new species is included in a molecular phylogeny of *Kyklioacalles* using the mitochondrial COI- and 16S-gene in a Bayesian analysis, and the genetic p-distances of the COI-gene to the closely related species are given in a map.

[135] **Stüben, P.E. (2012):** *Calacalles bandamaensis* sp.n. von Gran Canaria (Kanarische Inseln) (Coleoptera: Curculionidae: Cryptorhynchinae) – **Weevil *News***: http://www.curci.de, **83**, CURCULIO-Institute: Mönchengladbach: 6 pp. – PDF –
(see: http://www.curci.de/?beitrag=206)

Abstract: A new species of the western Palaearctic weevil genus ***Calacalles* (Peyerimhoff, 1925)** is described from Spain: Canary Islands (Gran Canaria). This species is distinguished from the related species ***Calacalles minutus* Bahr 2000** (loc. typ.: La Gomera), ***C. pusillus* Bahr 2000** (loc. typ.: Tenerife: Teno Mts.) and ***C. affinis* Bahr 2000** (loc. typ.: Tenerife: Anaga Mts.). The new species was included in a molecular phylogenetical analysis of the Subgenus *Nanoacalles* (using the mitochondrial COI-gene). The genetic p-distances of the COI-gene to the closely related species are presented here in a map.

[136] **Stüben, P.E. (2012):** Editorial: Are keys for the determination of insect species still up to date? DNA barcoding set into a right *perspective* / Sind Bestimmungsschlüssel in der Entomologie noch zeitgemäß? DNA-Barcoding ins rechte *Bild* gerückt. (English/German) - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **13**: 10 pp. – PDF –

[137] **Stüben P.E. & Stüben A. (2012):** Poster on "The Weevils of La Gomera / Los gorgojos de La Gomera" (1.2.2012). - *CURCI-Poster* **1**, (during "The 7th International Meeting of the CURCULIO Institute on La Gomera (Canary Islands) in March 2012"), La Gomera, Hermigua : Din A0. – PDF –

[138] **Stüben, P.E. & J.J. Astrin (2012):** Integrative Taxonomy, Phylogeny, and New Species of theWeevil Genus *Onyxacalles* Stüben (Coleoptera: Curculionidae: Cryptorhynchinae). - *Psyche (*doi:10.1155/2012/654948; open access), 22pp. – PDF –

Abstract: A molecular phylogeny of the western Palearctic weevil genus *Onyxacalles* Stüben, 1999 is presented, combining two mitochondrial genes (COI and 16S) in a Bayesian analysis. Based on molecular data, *Onyxacalles pyrenaeus* Boheman, 1844 is transferred into the genus *Kyklioacalles* Stüben 1999 (*K. fausti* group) and—in an integrative taxonomy framework—the interaction between morphology and molecular analysis is illustrated. The species of *Onyxacalles* s. str. are assigned to three new species groups, *O. henoni, O. luigionii,* and *O. portusveneris* groups. The distribution of the related species in the Mediterranean area is illustrated with values of COI and 16S p-distances. Three new species are described and distinguished from their related species: *Onyxacalles nuraghi* Stüben sp.n. from Italy (Sardinia), *Onyxacalles torre* Stüben and Astrin sp. n. from France (Corsica) and *Onyxacalles vilae* Stüben sp. n. from Croatia (Velebit Mts.). A catalogue of all 20 species of *Onyxacalles* is given, and a key is finally presented combined with image stacking of the habitus and aedeagus for all species.

[139] **Stüben P.E., Sprick P., Müller G., Bayer, Ch. , Behne, L. & Krátký J. (2012): D**igital-**W**eevil-**D**etermination der westpaläarktischen Curculionoidea: **Transalpina: Ceutorhynchinae (1. Teil).** (*Mononychini, Phytobiini, Hypurini, Cnemogonini, Scleropterini & Amalini*) - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **13**(191): 1-17. – HTML –
(see: http://www.curci.de/?beitrag=191)

Zusammenfassung: Im Rahmen des Projekts „**D**igital **W**eevil **D**etermination" wird erstmalig für die Triben ***Mononychini, Phytobiini, Hypurini, Cnemogonini, Scleropterini*** und ***Amalini*** der **Ceutorhynchinae** (1.Teil) ein digitales und interaktives Bestimmungswerk als „Bilderschlüssel" in englischer und deutscher Sprache vorgelegt. Es werden 44 Arten der westpaläarktischen Region „Transalpina" berücksichtigt (das zoogeographische Gebiet nördlich der Pyrenäen, der Alpen und der Balkan-Gebirge; die östliche Abgrenzung orientiert sich grob am Verlauf der Ostgrenzen der aktuellen Mitgliedsstaaten der Europäischen Union). Jede Aussage im Schlüssel erfolgt zunächst als Bildinformation und wird erst in zweiter Linie - eher ergänzend - in Textform „übersetzt". Damit folgen wir einem Grundprinzip moderner entomologisch-taxonomischer Arbeiten: Im Lichtmikroskop das sehen, was die digitale Abbildung auf dem Monitor vergleichend bereithält! Die Arbeit enthält zu jeder Art Verbreitungskarten und zu allen Arten Informationen zur Biologie.

[140] **Stüben P.E., Sprick P., Müller G., Bayer, Ch. , Behne, L. & Krátký J. (2012): D**igital-**W**eevil-**D**etermination for Curculionoidea of West Palaearctic: **Transalpina: Ceutorhynchinae (1. Part).** (*Mononychini, Phytobiini, Hypurini, Cnemogonini, Scleropterini & Amalini*) - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **13**(192): 18-33. – HTML –
(see: http://www.curci.de/?beitrag=192)

Abstract: In the framework of the '**D**igital **W**eevil **D**etermination' project a digital and interactive determination work for **Ceutorhynchinae** (part 1) of the following tribes: ***Mononychini, Phytobiini, Hypurini, Cnemogonini, Scleropterini*** and ***Amalini***

is presented for the first time as a pictorial key in both English and German. 44 species of the West Palaearctic region "Transalpina" (the eastern delimitation is orientated approximately along the eastern borderlines of the EU members) were taken into account. Information in the key is depicted visually and is also - more traditionally - 'translated' into text. Thus, we follow a basic principle of modern entomological and taxonomical work: to see by light-optical microscope exactly what the digital image is displaying on the screen. Information on the biology of every species completes this work.

[141] **Stüben P.E., Sprick P., Behne L., Alziar G., Colonnelli E., Giusto C., Messutat J. & Teodor L.A. (2012):** The Curculionoidea (Coleoptera) of Cyprus. Results of a collecting journey on Cyprus by members of the CURCULIO Institute in April 2010. - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **13**(195): 80-137. – HTML –
(see: http://www.curci.de/?beitrag=195)

Abstract: A complete species list of all findings (resulting from field trips during the 6th International Meeting of the CURCULIO Institute from 17.-25.4.2010 on Cyprus / Drouseia) is compiled. Digital photos of the habitus are given by focus stacking for **99** of total **163** species (scrollable, high resolution images). **30** new records of weevils are presented for the island of Cyprus. This illustrated list can be used for identifying of most of the Cyprian species. Finally, notes are presented for some taxa giving taxonomical, ecological, distributional and other information. The following taxonomical changes are presented: *Taeniapion notatum* (Wagner, 1912) comb.n., stat.rev. by Carlo Giusto, *Smicronyx pauperculus* Wollaston, 1864 (=*Smicronyx kiesenwetteri* Tournier, 1874; = *Smicronyx rufipennis* Tournier, 1874, syn. n.) by Peter Sprick and Enzo Colonnelli; and *Gronopidius fasciatus* (Küster, 1851), comb. n. from *Gronops* Schoenherr, 1823 by Enzo Colonnelli.

[142] **Astrin J.J., Stüben, P.E., Misof, B., Wägele, J.W., Gimnich, F., Raupach, M.J, Ahrens, D. (2012):** Exploring diversity in cryptorhynchine weevils (Coleoptera) using distance-, character- and tree-based species delineation. - *Molecular Phylogenetics and Evolution* **63**: 1-14. – PDF –

Abstract: Species boundaries are studied in a group of beetles, the western Palaearctic Cryptorhynchinae. We test for congruence of 'traditionally' identified morphospecies with species inferred through parsimony networks, distance-based clustering and the ultrametric tree-based generalized mixed yule-coalescent (GMYC) approach. For that purpose, we sequenced two variable fragments of mitochondrial DNA (CO1 and 16S) for a total of 791 specimens in 217 species of Cryptorhynchinae. Parsimony networks, morphology-calibrated distance clusters and the different tree-based species inferences all achieved low congruence with morphospecies, at best 60%. Although the degree of match with morphospecies was often similar for the different approaches, the composition of clusters partially varied. A barcoding gap was absent in morphospecies-oriented distances as well as for GMYC species clusters. This demonstrates that not only erroneous taxonomic assignments, incomplete lineage sorting, hybridization, or insufficient sampling can compromise distance-based identification, but also differences in speciation rates and uneven tree structure. The initially low match between morphospecies and the different molecular species delineation methods in this case study shows the necessity of combining the output of various methods in an integrative approach. Thereby we obtain an idea about the reliability of the different results and signals, which enables us to fine-tune sampling, delineation technique and data collection, and to identify species that require taxonomic revision.

[143] **Sprick, P. & P.E. Stüben (2012, Hg.):** Rüsselkäfer in anthropogenen Lebensräumen. - **SNUDEBILLER*extra*:** Studies on taxonomy, biology and ecology of Curculionoidea, CD-ROM, Mönchengladbach: CURCULIO-Institute, 170 S.

[144] **Sprick, P., Stüben, P.E. & C. Bayer (2012):** Digitaler Bildbestimmungsschlüssel für bodenbewohnende Rüsselkäfer (Curculionidae: Entiminae) aus Baumschulen, Staudengärtnereien, Hopfengärten, Garten- und Parkanlagen. In: **Sprick, P. & P.E. Stüben (2012, Hg.):** Rüsselkäfer in anthropogenen Lebensräumen. - **SNUDEBILLER*extra*:** Studies on taxonomy, biology and ecology of Curculionoidea, Mönchengladbach: CURCULIO-Institute: 5 - 48.

Abstract: Digital-Weevil-Determination. Broad-nosed weevils (Curculionidae: Entiminae) of tree nurseries, hop cultivations, horticultural farms, gardens and parks. Including 1303 coloured photographies. As an important part of the soil-dwelling weevils project, a digital and interactive identification and pictorial key is presented for the first time to the broad-nosed weevils of tree nurseries, hop cultivations and horticultural farms, among them all noxious species incapable of flight and the most important species capable of flight. 42 species from Central Europe are considered in the key and additional 17 rsp. 19 species are presented on photos, mainly to ensure the determination. Each statement in the key is firstly given as pictorial information and secondly transmitted into text. By this, we follow a basic principle of modern entomo-taxonomical works: To see digitally on the screen, what the light microscope is keeping at hand. - Comments on the biology of each species, on the pest status and information on the distribution in Germany complete the picture.

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[145] **Stüben, P.E., Schütte, A. & Astrin, J.J. (2013):** Molecular phylogeny of the weevil

genus *Dichromacalles* Stüben (Curculionidae: Cryptorhynchinae) and description of a new species. *Zootaxa* **3718 (2)***:* 101-127. – PDF –

Abstract: A molecular phylogeny of the western Palearctic weevil genus *Dichromacalles* Stüben, 1998, is presented, combining two mitochondrial genes, COI and 16S, and the nuclear gene 28S in a Bayesian analysis of up to 1528 combined nucleotide positions. Based on this data we point out the putative ancestor of the currently known extant *Dichromacalles* species that initiated the unique radiation within the species of the formerly *Acalles* s.l. on the Canary Islands around 10 to 20 million years ago. Where morphology reaches its limits in species differentiation, molecular analysis can provide deeper insight. By combining morphology and molecular biology into an integrative taxonomy, new characters can be found, making phenotypic descriptions easier. Using this integrative taxonomy background, the new species *Dichromacalles algecirasensis* Stüben (Spain: Cádiz) is described here and *D. lentisci* (Chevrolat, 1861) is transferred into the subgenus *Balcanacalles* Stüben & Behne, 1998 following a molecular phylogenetic reconstruction. A catalogue of all 12 species of *Dichromacalles* is given and a key is presented, combined with image stackings of the habitus and aedeagus for all species.

[146] **Stüben, P.E. & Behne, L. (2013a):** *Lixus (Compsolixus) erysimi* sp.n. von Gran Canaria (Kanarische Inseln) (Coleoptera: Curculionidae: Lixinae) - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **14**(207): 5 pp. – PDF –
(see: http://www.curci.de/?beitrag=207)

Abstract: A new endemic species of the weevil genus ***Lixus* Fabricius, 1801** is described from Spain: Canary Islands (Gran Canaria). This species is distinguished from **10** related species of the subgenus ***Compsolixus* Reitter, 1916**. The new species, which genetic p-distance of the COI-gene to the closely related species is presented here, was collected from *Erysimum bicolor* (Hornem.) DC., an endemic plant from the Macaronesian Islands.

[147] **Stüben, P.E. & Behne, L. (2013b)**: Electronic Comments on the Description of *Lixus (Compsolixus) erysimi* from Gran Canaria (Canary Islands). (Coleoptera: Curculionidae: Lixinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **14**(208): 5pp. – HTML –
(see: http://www.curci.de/?beitrag=208)

Abstract: The species *Lixus (Compsolixus) erysimi* Stüben & Behne 2013 is distinguished from ten related species of the subgenus ***Compsolixus* Reitter, 1916** from Macaronesian Islands, southwest Europe and northern Africa by focus stacking and macro-photography. Thus, we follow a basic principle of modern entomological and taxonomic work: to see by light-optical microscope exactly what the digital image is displaying on the screen. A print version (on paper) of these scroll and zoom pictures is not realizable in this quality.

[148] **Stüben, P.E. & Behne, L. (2013c):** Die Curculionoidea (Coleoptera) Gran Canarias. Mit einem Nachtrag zu den Curculionoidea La Gomeras. - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **14**(212): 53 pp. – HTML –
(see: http://www.curci.de/?beitrag=212)

Abstract: The Curculionoidea (Coleoptera) of Gran Canaria, with 1107 photographs, 50 plates and 168 distribution maps. 32 new records of weevils are presented for the Canarian island Gran Canaria. Digital photos of habitus and aedeagus (dorsal/ lateral) are given by focus stacking for all 164 species (scrollable, high resolution images. A complete checklist of all findings (primarily resulting from a field trip of the authors from 1.12.2010 - 24.1.2011) is compiled, and the distribution is mapped for all valid taxa. Finally, notes on each taxon are presented including giving taxonomical, ecological, distributional and other information. For 40 species observations on biology and host plants are presented in large, scrollable images. This illustrated list can be used for species determination and represents the first step towards an "Encyclopedia of Macaronesian Weevils" presented on the Internet (Le Charançon) within the next years. With an annex on corrections and additions to the catalogue "P.E. Stüben, Die Curculionoidea (Coleoptera) La Gomeras - SNUDEBILLER 12 / 2011: 85-129" - and with 9 new records of weevils for this island.

[149] **Stüben P.E., Müller G., Krátký J., Bayer, Ch. , Behne, L. & Sprick, P. (2013a)**: **D**igital-**W**eevil-**D**etermination der westpaläarktischen Curculionoidea: **Transalpina: Ceutorhynchinae (2. Teil).** (Ceuthorhynchini: *Amalorrhynchus, Drupenatus Poophagus, Coeliodes, Pseudocoeliodes, Coeliodinus, Eucoeliodes, Neoxyonyx, Thamiocolus, Micrelus, Zacladus, Phrydiuchus, Stenocarus, Nedyus, Ceutorhynchus:* Marklissus). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **14**(209): 24 pp. – HTML –
(see: http://www.curci.de/?beitrag=209)

Zusammenfassung: Im Rahmen des Projekts „**D**igital **W**eevil **D**etermination" wird erstmalig für die Gattungen des Tribus Ceutorhynchini ***Amalorrhynchus, Drupenatus, Poophagus, Coeliodes, Pseudocoeliodes, Coeliodinus, Eucoeliodes, Neoxyonyx, Thamiocolus, Micrelus, Zacladus, Phrydiuchus, Stenocarus, Nedyus, Ceutorhynchus*** **(Marklissus)**

(Ceutorhynchinae: 2.Teil) ein digitales und interaktives Bestimmungswerk als „Bilderschlüssel" in englischer und deutscher Sprache vorgelegt. Es werden **74** Arten der westpaläarktischen Region „Transalpina" berücksichtigt (das zoogeographische Gebiet nördlich der Pyrenäen, der Alpen und der Balkan-Gebirge; die östliche Abgrenzung orientiert sich grob am Verlauf der Ostgrenzen der aktuellen Mitgliedsstaaten der Europäischen Union). Jede Aussage im Schlüssel erfolgt zunächst als Bildinformation und wird erst in zweiter Linie - eher ergänzend - in Textform „übersetzt". Damit folgen wir einem Grundprinzip moderner entomologisch-taxonomischer Arbeiten: Im Lichtmikroskop das sehen, was die digitale Abbildung auf dem Monitor vergleichend bereithält! Die Arbeit enthält zu jeder Art Verbreitungskarten und Informationen zu den Wirtspflanzen. Ein Lectotypus für *Poophagus robustus* Faust 1882 wird festgelegt (Senckenberg - Naturhistorische Sammlungen, Museum Dresden, Germany).

[150] **Stüben P.E., Müller G., Krátký J., Bayer, Ch. , Behne, L. & Sprick, P. (2013b):** **D**igital-**W**eevil-**D**etermination for Curculionoidea of West Palaearctic: **Transalpina: Ceutorhynchinae (2. Part).** (Ceuthorhynchini: *Amalorrhynchus, Drupenatus, Poophagus, Coeliodes, Pseudocoeliodes, Coeliodinus, Eucoeliodes, Neoxyonyx, Thamiocolus, Micrelus, Zacladus, Phrydiuchus, Stenocarus, Nedyus, Ceutorhynchus:* Marklissus) - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **14**(210): 23 pp., CURCULIO-Institute: Mönchengladbach. – HTML –
(see: http://www.curci.de/?beitrag=210)

Abstract: In the framework of the '**D**igital **W**eevil **D**etermination' project a digital and interactive determination work for **Ceutorhynchinae** (part 2) of the following genera of the tribe Ceuthorhynchini: ***Amalorrhynchus, Drupenatus, Poophagus, Coeliodes, Pseudocoeliodes, Coeliodinus, Eucoeliodes, Neoxyonyx, Thamiocolus, Micrelus, Zacladus, Phrydiuchus, Stenocarus, Nedyus*** and ***Ceutorhynchus*** **(Marklissus)** is presented for the first time as a pictorial key in both English and German. **74** species of the West Palaearctic region "Transalpina" (the eastern delimitation is orientated approximately along the eastern borderlines of the EU members) were taken into account. Information in the key is depicted visually and is also - more traditionally - 'translated' into text. Thus, we follow a basic principle of modern entomological and taxonomical work: to see by light-optical microscope exactly what the digital image is displaying on the screen. Information on distribution and host plant data of each species completes this work. A lectotype is desginated for *Poophagus robustus* Faust 1882 (Senckenberg - Natural History Collections, Museum Dresden, Germany).

[151] **Stüben P.E. (2013d):** *Calacalles (Nanoacalles) lepensis* sp.n. von La Gomera (Kanarische Inseln). (Coleoptera: Curculionidae: Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **14**(216): 5 pp. – PDF –
(see: http://www.curci.de/?beitrag=216)

Abstract: A new species of the western Palaearctic weevil genus ***Calacalles*** **(Peyerimhoff, 1925)** is described from Spain: Canary Islands (La Gomera). This species is distinguished from the closely related species ***Calacalles nataliae*** **Astrin & Stüben 2009** (locus typicus: La Gomera). The new species was included in a molecular phylogenetical analysis of the subgenus *Nanoacalles* (using the mitochondrial COI-gene). The genetic p-distances of the COI-gene to the closely related species are presented here in a map.

[152] **Stüben P.E. (2013e):** Electronical Comments on the Description of *Calacalles (Nanoacalles) lepensis*. – A key to the *Calacalles* species from La Gomera (Canary Islands). (Coleoptera: Curculionidae: Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **14**(217): 4 pp. – HTML –
(see: http://www.curci.de/?beitrag=217)

Abstract: The species ***Calacalles lepensis*** Stüben 2013 – first description see: [Stüben 2013] - is distinguished from six related species of the subgenus ***Nanoacalles*** **Astrin & Stüben, 2008** from La Gomera (Canary Islands) by focus stacking and macro-photography. The picture key includes the species: ***C. pumilio*** Bahr 2000, ***C. minutus*** Bahr 2000, ***C. nataliae*** Astrin & Stüben 2009, ***C. hermigua*** Stüben & Astrin 2009, ***C. agana*** Stüben 2010, ***C. mulagua*** Stüben 2010 and the new species ***C. lepensis*** Stüben 2013.

[153] **Stüben, P.E. (2013f):** Editorial: From Bookreader to Internetreader - a big jump into the Internet age/ Vom Bookreader zum Internetreader - ein großer Sprung ins Internetzeitalter. (English/German) - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **14**: 10 pp. – PDF –

[154] **Stüben P.E. & Schütte, A (2013):** Die Wiederentdeckung von *Acalles xerampelinus* Wollaston, 1864, und die Stellung im System der kanarischen Cryptorhynchinae (Curculionidae: Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **14**(218): 14 pp. – HTML –

(see: http://www.curci.de/?beitrag=218)

Abstract: The rediscovery of *Acalles xerampelinus* Wollaston, 1864, and its position in the phylogenetic system of the Canarian Cryptorhynchinae (Curculionidae); with 35 photos, 1 map and 1 dendrogram**.** The finding circumstances and the scope of knowledge about the Cryptorhynchinae weevil *Acalles xerampelinus* from Tenerife (Canary Islands, Spain) are provided. Within the context of Integrative Taxonomy molecular and morphological data were discussed. Based on these results we suggest to transfer *Acalles xerampelinus* into the genus *Pseudodichromacalles* Stüben & Astrin 2010 for the present. However, there are morphological and ecological arguments for the description of a monotypic genus as well: not just the internal structure of the sac of the aedeagus differs to a large extent from the endophallus of the sister taxon *P. fernandezi* (Roudier, 1954), also ecological aspects like the host plant acceptance of *Woodwardia radicans* (L.) Sm. in the always humid laurel forest are completely different. Finally, we explain the current genus classification of the Canarian Cryptorhynchinae in detail here again.

[155] **Schütte, A., Stüben P.E. & Sprick, P. (2013):** The Molecular Weevil Identification Project (Coleoptera: Curculionoidea), part I. A contribution to an Integrative Taxonomy and Phylogenetic Systematics - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **14**(211): 77 pp., CURCULIO-Institute: Mönchengladbach. – HTML –
(see: http://www.curci.de/?beitrag=211)

Abstract: For the first time we present the results of the **Molecular Weevil Identification (MWI) project.** The complete phylogenetic tree of the Bayesian analysis can be accessed here: **[Fig. Bayesian Tree],** and comprised 605 samples with 453 species of 187 genera of weevils. It includes 2 undetermined species of the tribe Peritelini, 20 potential new species (cf. or spec.) and 21 Cryptorhynchinae species from former projects of the CURCULIO Institute. Furthermore, for 17 taxa respectively sister species we discuss the species rank and ask whether or not a synonym or a new species could be envisaged - or whether a new evidence can be found to place a species in a different genus. Relevant external characters and the male genitalia of the discussed taxa are illustrated in 22 pictures. With the short comments made in the results and discussion of the current weevil taxonomy, **we do not intend to make any final taxonomic changes**, but we would like to provide initial indications of possible inconsistencies of the current taxonomic states.

[156] **Stüben, P.E. & Alonso-Zarazaga, M.A. (2013):** Subfamily *Cryptorhynchinae***,** in: **Löbl, I. & Smetana,** A.: Cataloque of Palaearctic Coleoptera, Vol. **8**: 229 – 245, Leiden & Boston.

[157] **Stüben, P.E. & Behne, L. (2013):** Curculionidae: Cryptorhynchinae. Reversal of precedence. in: **Löbl, I. & Smetana,** A.: Cataloque of Palaearctic Coleoptera, Vol. **8**: 61-62, Leiden & Boston.

2014

[158] **Stüben, P.E. & Schütte, A. (2014):** *Silvacalles* (s.str.) *carlinavorus* sp.n. from La Gomera (Canary Island) (Coleoptera: Curculionidae: Cryptorhynchinae) – ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **15**(219): 7 pp. – PDF –
(see: http://www.curci.de/?beitrag=219)

Abstract: A new species of the Western Palaearctic weevil genus ***Silvacalles* (s.str.) *carlinavorus*** is described from La Gomera: Spain, Canary Islands. This species is distinguished from the morphological and molecular closely related species ***Silvacalles nubilosus* (Wollaston, 1864)** from Tenerife (locus typicus) and - still a matter of debate - from La Palma. The new species was included in a molecular phylogenetical analysis of the subgenus *Silvacalles* s.str. (using the mitochondrial COI-gene). The COI based p-distances to closely related species are presented in a map.

[159] **Stüben P.E., Müller G., Müller U., Krátký J., Bayer Ch. , Behne L.& Sprick P. (2014):** **D**igital-**W**eevil-**D**etermination der westpaläarktischen Curculionoidea: Transalpina: Ceutorhynchinae (3. Teil). (Ceutorhynchini: *Datonychus, Ethelcus, Glocianus, Hadroplontus, Microplontus, Mogulones, Mogulonoides, Neoglocianus, Oprohinus, Parethelcus, Prisistus, Ranunculiphilus*) - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **15**(221): 26 pp. – HTML –
(see: http://www.curci.de/?beitrag=221)

Zusammenfassung: Im Rahmen des Projekts „**D**igital **W**eevil **D**etermination" wird erstmalig für die Gattungen des Tribus Ceutorhynchini: ***Datonychus, Ethelcus, Glocianus, Hadroplontus, Microplontus, Mogulones, Mogulonoides, Neoglocianus, Oprohinus, Parethelcus, Prisistus, Ranunculiphilus*** (Ceutorhynchinae: 3.Teil) ein digitales und interaktives Bestimmungswerk als “Bilderschlüssel" in englischer und deutscher Sprache vorgelegt. Es werden **83** Arten der westpaläarktischen Region „Transalpina" berücksichtigt (das zoogeographische Gebiet nördlich der Pyrenäen, der Alpen und des Balkan-Gebirges; die östliche Abgrenzung orientiert sich grob am Verlauf der Ostgrenzen der aktuellen Mitgliedsstaaten der Europäischen Union). Jede Aussage

im Schlüssel erfolgt zunächst als Bildinformation und wird erst in zweiter Linie - eher ergänzend - in Textform “übersetzt". Damit folgen wir einem Grundprinzip moderner entomologisch-taxonomischer Arbeiten: Im Lichtmikroskop das sehen, was die digitale Abbildung auf dem Monitor vergleichend bereithält! Die Arbeit enthält zu jeder Art Verbreitungskarten und Informationen zu den Wirtspflanzen.

[160] **Stüben P.E., Müller G., Müller, U., Krátký J., Bayer, Ch. , Sprick, P., Behne, L. & (2014): D**igital-**W**eevil-**D**etermination for Curculionoidea of the West Palearctic: Transalpina: Ceutorhynchinae (3. part). (Ceutorhynchini: *Datonychus, Ethelcus, Glocianus, Hadroplontus, Microplontus, Mogulones, Mogulonoides, Neoglocianus, Oprohinus, Parethelcus, Prisistus, Ranunculiphilus*) - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **15**(222): 25 pp. – HTML –
(see: http://www.curci.de/?beitrag=222)

Abstract: In the framework of the '**D**igital **W**eevil **D**etermination' project a digital and interactive determination work for **Ceutorhynchinae** (part 3) of the following genera of the tribe Ceutorhynchini: ***Datonychus, Ethelcus, Glocianus, Hadroplontus, Microplontus, Mogulones, Mogulonoides, Neoglocianus, Oprohinus, Parethelcus, Prisistus, Ranunculiphilus*** is presented for the first time as a pictorial key in both English and German. **83** species of the West Palaearctic region "Transalpina" (the eastern delimitation is orientated approximately along the eastern borderlines of the EU members) were taken into account. Information in the key is depicted visually and is also - more traditionally - 'translated' into text. Thus, we follow a basic principle of modern entomological and taxonomical work: to see by light-optical microscope exactly what the digital image is displaying on the screen. Information on distribution and host plant data of each species completes this work.

[161] **Stüben, P.E. (2014):** *Dichromacalles* (s.str.) *andalusiensis* sp.n. aus Spanien (Coleoptera: Curculionidae: Cryp-torhynchinae) – ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **15**(223): 5pp. – PDF –
(see: http://www.curci.de/?beitrag=223)

Abstract: A new species of the western Palaearctic weevil genus ***Dichromacalles*** **Stüben, 1998** is described from Spain (Andalusia). This species is distinguished from the closely related species ***Dichromacalles querilhaci*** **(H. Brisout, 1864)** (locus typicus: France, Toulouse). The new species was included in a molecular analysis of the genus ***Dichromacalles*** (using the mitochondrial COI-gene). The genetic p-distances of the COI-gene to the closely related species are presented here in a map.

[162] **Stüben, P.E. (2014):** Electronic Comments on the Description of *Dichromacalles* (s.str.) *andalusiensis* - with a key to the *Dichromacalles* species (Coleoptera: Curculionidae: Cryptorhynchinae). - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **15**(224)*:* 4 pp. – HTML –
(see: http://www.curci.de/?beitrag=224)

Abstract: The species ***Dichromacalles*** **(s.str.)** ***andalusiensis*** Stüben 2014 (locus typicus: Spain, Sierra Almadén) is distinguished from 12 species of the genus ***Dichromacalles*** **Stüben, 1998** from the whole Western Palearctic by focus stacking and macrophotography (picture key). A differential diagnosis is given for the closely related species ***Dichromacalles querilhaci*** **(H. Brisout, 1864)** (locus typicus: France, Toulouse). Distribution maps are presented for all *Dichromacalles* species.

[163] **Stüben, P.E. (2014):** Die Curculionoidea (Coleoptera)Tenerifes. - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **15**(226): 118 pp. – HTML –
(see: http://www.curci.de/?beitrag=226)

Abstract: The Curculionoidea (Coleoptera) of Tenerife, with 1312 photographs, 71 plates and 193 distribution maps. 199 weevil species are reported from the Canarian island of Tenerife and, among them, 7 species are recorded for the first time from this island. Digital photos of habitus and aedeagus (dorsal/ lateral) are given by focus stacking for each species (scrollable, high resolution images; e.g. [Fig. ALLmus.1M]). A complete checklist of all findings (primarily resulting from a field trip of the authors from 2.1 - 29.2.2012) is compiled, and the distribution is mapped for all valid taxa. Finally, notes on each taxon are presented including taxonomical, ecological, distributional and other information. For 70 species observations on biology and host plants are presented in large, scrollable images. This illustrated list can be used for species determination and represents the first step towards an "Encyclopedia of Macaronesian Weevils" presented on the Internet (Le Charançon) within the next years. The following **proposals** are discussed (see the binding new nomenclatural and taxonomic acts in SNUDEBILLER*print*, 1. December 2014, ISSN 2197-3024): **1. Designation of lectotype**: *Apion umbrinum* Wollaston, 1864, *Mesites mimoides* Voss, 1934, *Brachyderes rugatus rugatus* Wollaston, 1864, *Brachyderes rugatus sculpturatus* Wollaston, 1864, *Alophus alternans* Wollaston, 1865, *Herpisticus calvus* Wollaston, 1864, *Herpisticus oculatus* Wollaston, 1864, *H. eremita* ß *subvestita* Wollaston, 1864 und *H. eremita y lanata* Wollaston, 1864, *Plinthus musicus* Wollaston, 1860, *Plinthus velutinus* Wollaston, 1860, *Alophus alternans* Wollaston, 1865, *Alophus magnificus* Wollaston, 1864, *Mesites euphorbiae* Wollaston, 1861, *Mesites proximus* Wollaston, 1861 and *Mersites persimilis* Wollaston, 1861. **2. New synonyms:** *Apion umbrinum* Wollaston, 1864 (Gran Canaria) **<syn. nov.>** (= *Apion ononis* Kirby, 1808); *Amaurorhinus folwacznyi* Osella & Giusto, 1985 (La Gomera) **<syn. nov.>** (= *Amaurorhinus punctipennis* Osella &

Giusto, 1985, Tenerife), *Phloeophagus affinis* var. ß *proximus* Wollaston, 1861 (El Hierro) **<syn. nov.>**, *Pselactus affinis* var. *difficilis* Folwaczny, 1972 (Tenerife) **<syn. nov.>**, *Pselactus folwacznyi* Israelson, 1980 (La Gomera) **<syn. nov.>** (= *Phloeophagus affinis* Wollaston, 1861, Tenerife); *Brachyderes rugatus calvus* Uyttenboogaart, 1940 (Gran Canaria) **<syn. nov.>** (= *Brachyderes rugatus sculpturatus* Wollaston, 1864, Gran Canaria/Tenerife); *Plinthus cucullus* Wollaston, 1864 (Gran Canaria) **<syn. nov.>** (= *Plinthus velutinus* Wollaston, 1860, Tenerife).

[164] **Stüben, P.E. (2014):** *Echinodera (Ruteria) lusitanica* sp.n. aus Portugal (Coleoptera: Curculionidae: Cryptorhynchinae) – ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **15**(228): 5pp. – PDF –
(see: http://www.curci.de/?beitrag=228)

Abstract: A new species of the Western Palaearctic weevil genus ***Echinodera* Wollaston, 1863** is described from Portugal: Serra de Sintra (locus typicus). This species is distinguished from the closely related species ***Echinodera paganettii* (F. Solari, 1952)** (locus typicus: Spain: Ponferrada). The new species was included in a molecular analysis of the subgenus ***Ruteria* Roudier, 1954**, particularly of the *E. paganettii* complex (using the mitochondrial COI-gene). The genetic p-distances of the COI-gene to the closely related species are presented here in a map.

[165] **Stüben, P.E. & Schütte, A. (2014):** Zwei neue Arten aus dem *Thamiocolus wollastoni* – Komplex von den Kanarischen Inseln (Coleoptera: Curculionidae: Ceutorhynchinae) – ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **15**(230): 10pp. – PDF –
(see: http://www.curci.de/?beitrag=230)

Abstract: Two new species are separated from the species complex of ***Thamiocolus wollastoni*** Uyttenboogaart, 1930, and are described from the Canary Islands (Spain): ***Thamiocolus garajonay*** Stüben sp.n. and ***Thamiocolus grancanariensis*** Stüben & Schütte sp.n. In a morphological differential analysis the species from Tenerife, Gran Canaria and La Gomera are distinguished from each other. These separations are supported by molecular analysis of the new species using the mitochondrial COI-gene including species of the genus *Thamiocolus* and of all other Ceutorhynchinae from the Canarian Islands. The genetic p-distances of the COI-gene to the closely related species and the populations are presented here in a map. A key of the species is given in German and English.

[166] **Stüben, P.E. (2014):** Editorial: It's the mix that matters - Open access and articles to pay for/ Die Mischung macht's - Open access- und Bezahlartikel. (English/German) - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **15**: 10 pp. – PDF –

[167] **Stüben, P.E. (2014):** New nomenclatural and taxonomic acts, and Comments (2014) – **Snudebiller** *Studies on taxonomy, biology and ecology of Curculionoidea* **15 (**231): 5pp. – PDF –
(see: http://www.curci.de/?beitrag=231)

Abstract: 1 New synonyms: *Apion umbrinum* Wollaston, 1864 (Gran Canaria) **syn. nov.** (= *Apion ononis* Kirby, 1808); *Amaurorhinus folwacznyi* Osella & Giusto, 1985 (La Gomera) **syn. nov.** (= *Amaurorhinus punctipennis* Osella & Giusto, 1985, Tenerife), *Phloeophagus affinis* var. ß *proximus* Wollaston, 1861 (El Hierro) **syn. nov.**, *Pselactus affinis* var. *difficilis* Folwaczny, 1972 (Tenerife) **syn. nov.**, *Pselactus folwacznyi* Israelson, 1980 (La Gomera) **syn. nov.** (= *Phloeophagus affinis* Wollaston, 1861, Tenerife); *Brachyderes rugatus calvus* Uyttenboogaart, 1940 (Gran Canaria) **syn. nov.** (= *Brachyderes rugatus sculpturatus* Wollaston, 1864, Gran Canaria/Tenerife); *Plinthus cucullus* Wollaston, 1864 (Gran Canaria) **syn. nov.** (= *Plinthus velutinus* Wollaston, 1860, Tenerife); *Lindbergius* **syn. nov.** *curtus* Roudier, 1957 (Tenerife) **syn. nov.** (= *Pentatemnus arenarius arenarius* Wollaston, 1861, Fuerteventura) 3. **Change in rank:** *Torneuma vastum* Stüben, 2007, **stat. nov.** (is a subspecies: *T. curtulum vastum*). **3. Designation of lectotypes**: *Apion umbrinum* Wollaston, 1864, *Mesites euphorbiae* Wollaston, 1861, *Mesites proximus* Wollaston, 1861, *Mersites persimilis* Wollaston, 1861, *Mesites mimoides* Voss, 1934, *Brachyderes rugatus rugatus* Wollaston, 1864, *Brachyderes rugatus sculpturatus* Wollaston, 1864, *Alophus alternans* Wollaston, 1865, *Herpisticus calvus* Wollaston, 1864, *Herpisticus oculatus* Wollaston, 1864, *Herpisticus eremita subvestita* (f. ß) Wollaston, 1864 und *Herpisticus eremita lanata* (f. γ) Wollaston, 1864, *Plinthus musicus* Wollaston, 1860, *Plinthus velutinus* Wollaston, 1860, *Alophus alternans* Wollaston, 1865, *Alophus magnificus* Wollaston, 1864, *Poophagus robustus* Faust 1882.

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[168] **Schütte A., & Stüben P.E. (2015):** Molecular systematics and morphological identification of the cryptic species of the genus *Acalles* Schoenherr, 1825, with descriptions of new species. *Zootaxa 3915* (1): 1–51. – PDF –

Abstract: Molecular systematics and morphological study of the monophyletic weevil genus *Acalles* Schoenherr, 1825 are presented. Based on the mitochondrial CO1 barcoding gene and 16S ribosomal RNA gene, we discuss three difficult species complexes in the framework of a molecular phylogenetic reconstruction of 37 of 47 Western Palaearctic *Acalles* species or

subspecies: the *A. echinatus, A. maraoensis and A. sierrae* complexes. Two results are given: 1. An exclusive focus on morphological, exoskeletal methods reach their limits in the case of many cryptic Cryptorhynchinae. In these cases molecular analysis is indispensable to resolve species level questions. 2. By using a combination of phenotypic and genotypic characters it is not only possible to ascertain phylogenetic relationships, but also to uncover new morphological, non-intraspecifical characteristics. Digital photography with image stacking makes this possible: for the first time we present photo key for *Acalles* species, a reliable, less costly and quick method for identification alongside DNA barcoding. The following taxonomic changes are given: *Coloracalles* edoughensis Desbrochers, 1892 comb. nov. (formerly *Acalles edoughensis*) from North Africa and Spain change to *Coloracalles* Astrin & Stüben, 2008 and *Pseudodichromacalles xerampelinus* Wollaston, 1864 comb. nov. from the Canarian Island Tenerife, *Acalles bazaensis* Stüben, 2001 syn. nov. is a junior synonym of *Acalles sierrae* H. Brisout, 1865. Two new species of *Acalles* s. str. , *A. iblanensis* Stüben sp. nov. from Morocco and *A. vorsti* Stüben sp. nov. from Spain (Mallorca), and a new species of the subgenus *Origoacalles* Stüben & Astrin 2010, *A. granulimaculosus* Stüben sp. nov. from La Gomera, are described. *Acalles temperei* Péricart, 1987 stat. nov. is a subspecies of *A. parvulus* Boheman, 1837. A catalogue of all 43 (+4 incertae sedis) species of *Acalles* is presented. Finally and for the first time we compare 9 of 12 known North American so-called "*Acalles*" species with the Western Palaearctic species of *Acalles* surrounding the type species *Curculio camelus* Fabricius, 1792. The morphological and molecular analysis for the New World *Acalles* show that none of the species from the United States actually belong to the genus *Acalles* or one of the other genera of Western Palaearctic Cryptorhynchinae. There is one exception: *Acalles costifer* Le Conte, 1884, is transferred to the phylogenetically basal genus *Acallocrates* Reitter, 1913 as *Acallocrates costifer* (LeConte, 1884) comb. nov.

[169] **Stüben, P.E. (2015):** *Acalles abstersus* Boheman, 1837 resyn. - die dritte, kryptische *Kyklioacalles*-Art des Subgenus *Palaeoacalles* Stüben, 2003 für Deutschland (Coleoptera: Curculionidae: Cryptorhynchinae) - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **16**(232): 14 pp. – HTML –
(see: http://www.curci.de/?beitrag=232)

Abstract: A resynonymisation of *Acalles abstersus* Boheman, 1837 (locus typicus: Austria, Carinthia), is given, and this species is redescribed and illustrated here for the first time (habitus and aedeagus). It belongs to the subgenus *Palaeoacalles* Stüben, 2003, of the genus *Kyklioacalles* Stüben, 1999, and it is not a synonym of *Kyklioacalles roboris* (Curtis, 1834). In addition to *K. roboris* and *K. navieresi* (Boheman, 1837) it is the third *Palaeoacalles* species for the fauna of Germany (Baden-Württemberg: "Kaiserstuhl"). A molecular phylogeny reconstruction for all 4 cryptic *Palaeoacalles* species (including *K. velebitensis* Stüben, 2005 from Croatia) is presented, using two mitochondrial genes (CO1 and 16S). The species status of *Acalles abstersus* is discussed within the framework of a morphological and molecular systematic (integrative taxonomy). A key is given for all *Palaeoacalles* species in German and English language.

[170] **Stüben P.E., Bayer Ch., Müller G., Müller U., Krátký J., Behne L. & Sprick P. (2015):** Digital-Weevil-Determination der westpaläarktischen Curculionoidea: Transalpina: *Ceutorhynchinae* (4. Teil). (*Ceutorhynchini: Calosirus, Ceutorhynchus* (schwarze Arten), *Coeliastes, Prisistus, Sirocalodes, Trichosirocalus*) - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **16**(233): 28S. – HTML –
(see: http://www.curci.de/?beitrag=233)

Zusammenfassung: Im Rahmen des Projekts „**D**igital **W**eevil **D**etermination" wird erstmalig für die Gattungen des Tribus Ceutorhynchini: ***Calosirus, Ceutorhynchus* (schwarze Arten)*, Coeliastes, Prisistus, Sirocalodes, Trichosirocalus*** (Ceutorhynchinae: 4.Teil) ein digitales und interaktives Bestimmungswerk als „Bilderschlüssel" in englischer und deutscher Sprache vorgelegt. Es werden **97** Arten der westpaläarktischen Region „Transalpina" berücksichtigt (das zoogeographische Gebiet nördlich der Pyrenäen, der Alpen und des Balkan-Gebirges; die östliche Abgrenzung orientiert sich grob am Verlauf der Ostgrenzen der aktuellen Mitgliedsstaaten der Europäischen Union). Jede Aussage im Schlüssel erfolgt zunächst als Bildinformation und wird erst in zweiter Linie - eher ergänzend - in Textform „übersetzt". Damit folgen wir einem Grundprinzip moderner entomologisch-taxonomischer Arbeiten: Im Lichtmikroskop das sehen, was die digitale Abbildung auf dem Monitor vergleichend bereithält! Die Arbeit enthält zu jeder Art Verbreitungskarten und Informationen zu den Wirtspflanzen. Folgende Vorschläge werden diskutiert (die bindenden nomenklatorischen Änderungen werden ggf. im SNUDEBILLER*print* (ISSN 2197-3024) am 1. Dezember 2015 präsentiert): **Neue Synonyme (Vorschläge):** *Ceutorhynchus talickyi* Korotyaev, 1980 ***<syn nov.>*** (= *Ceutorhynchus puncticollis* Boheman, 1845); *Ceuthorhynchidius cakilis* V. Hansen, 1917 ***<syn. nov.>*** (= *Curculio typhae* Herbst, 1795); *Ceutorhynchus intermedius* C. N. F. Brisout de Barneville, 1869 ***<syn. nov.>*** (= *Ceutorhynchus roberti* Gyllenhal, 1837). **Transfer (Vorschlag):** *Sirocalodes gandoni* (Hoffmann, 1966) **<comb. nov.>** from *Ceutorhynchus.*

[171] **Stüben P.E., Bayer Ch., Müller G., Müller U., Krátký J., Behne L. & Sprick P. (2015):** Digital-Weevil-Determination for Curculionoidea of the West Palearctic: Transalpina: *Ceutorhynchinae* (4. part). (*Ceutorhynchini: Calosirus, Ceutorhynchus* (black species), *Coeliastes, Prisistus, Sirocalodes, Trichosirocalus*) - ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **16**(234): 27 pp. – HTML –
(see: http://www.curci.de/?beitrag=234)

Abstract: In the framework of the '**D**igital **W**eevil **D**etermination' project a digital and interactive determination work for

Ceutorhynchinae (part 4) of the following genera of the tribe Ceutorhynchini: ***Calosirus, Ceutorhynchus* (black species), *Coeliastes, Prisistus, Sirocalodes, Trichosirocalus*** is presented for the first time as a pictorial key in both English and German. **97** species of the West Palaearctic region "Transalpina" (the eastern delimitation is orientated approximately along the eastern borderlines of the EU members) were taken into account. Information in the key is depicted visually and is also - more traditionally - 'translated' into text. Thus, we follow a basic principle of modern entomological and taxonomical work: to see by light-optical microscope exactly what the digital image is displaying on the screen. Information on distribution and host plant data of each species completes this work. The following **proposals** are discussed (see the binding new nomenclatural and taxonomic acts coming soon in SNUDEBILLER*print*, 1. December 2015, ISSN 2197-3024): **New Synonyms (proposal):** *Ceutorhynchus talickyi* Korotyaev, 1980 **<syn nov.>** *(= Ceutorhynchus puncticollis* Boheman, 1845); *Ceuthorhynchidius cakilis* V. Hansen, 1917 **<syn. nov.>** (= *Curculio typhae* Herbst, 1795); *Ceutorhynchus intermedius* C. N. F. Brisout de Barneville, 1869 **<syn. nov.>** (= *Ceutorhynchus roberti* Gyllenhal, 1837). **New Combination (proposal):** *Sirocalodes gandoni* (Hoffmann, 1966) **<comb. nov.>** from *Ceutorhynchus.*

[172] **Stüben, P.E. & Schütte, A. (2015):** *Torneuma korwitzi* sp.n. from Madeira (Coleoptera: Curculionidae: Cryptorhynchinae) – ***SNUDEBILLER****: Studies on taxonomy, biology and ecology of Curculionoidea* **16**(236): 8pp. – PDF –
(see: http://www.curci.de/?beitrag=236)

Abstract: A new species of the western Palaearctic weevil genus ***Torneuma* s.str. Wollaston, 1860** is described from Portugal (Madeira). This species is separated from the four closely related species from the Madeira Archipelago: *Torneuma caecum* Wollaston, 1860 (type species), *T. desilvai* Osella & Zuppa, 1998, *T. maderense* Stüben, 2002 and *T. picocasteloense* Stüben, 2002. The new species was included in a molecular analysis of the tribe Torneumatini Bedel, 1884 (using the standard DNA barcoding area of the mitochondrial COI-gene). The genetic p-distances of the COI-gene to the closely related species are presented here in a map. A key to all 5 species of *Torneuma* s.str. from the Madeira Archipelago is given.

[173] **Stüben P.E., Schütte, A., Bayer, Ch., & J.J. Astrin (2015):** The Molecular Weevil Identification Project (Coleoptera: Curculionoidea), **Part II.** Towards an Integrative Taxonomy. - *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **16** (237): 294 pp. – HTML –
(see: http://www.curci.de/?beitrag=237)

Abstract: For the second time we present the results of the **Molecular Weevil Identification (MWI) project.** The complete Neighbor Joining Tree can be accessed in a second article (see**: http://www.curci.de/?beitrag=238)** and comprised **2499** samples with **1062** species of **289** genera of weevils. It includes **103** not clearly specified species (cf. or spec.) and for **844** Cryptorhynchinae specimens from former projects of the CURCULIO Institute. Furthermore, for **30** taxa respectively sister taxa pairs or groups we discuss the genus or species rank and ask e.g. whether or not a synonym or a new species/genus could be envisaged - or whether new evidence can be found to place a species in a different genus. With the short comments made in the results and discussion of the current weevil taxonomy, **we do not intend to make any final taxonomic changes already here**, but we would like to provide initial indications of possible inconsistencies of the current taxonomic states. For this case we discuss only **proposals**, but which should - after a wide ranging debate - become binding new nomenclatural and taxonomic acts in SNUDEBILLER*print* (ISSN 2197-3024) at the end of 2015. In most of the cases, relevant external characters and male genitalia of the discussed taxa are illustrated.

[174] **Stüben P.E., Schütte, A., Bayer, Ch., & J.J. Astrin (2015):** The Molecular Weevil Identification Project (Coleoptera: Curculionoidea), **Part II.** Towards an Integrative Taxonomy: ***Supplement.*** - *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **16** (238): 294 pp. – PDF –
(see: http://www.curci.de/?beitrag=238)

[175] **Stüben, P.E., Bayer, Ch., Bahr, F., Sprick, P. & Behne, L. (2015):** Digital-Weevil-Determination der westpaläarktischen Curculionoidea: Transalpina: Phyllobiini - *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **16** (240): 14 S. – HTML –
(see: http://www.curci.de/?beitrag=240)

Zusammenfassung: Im Rahmen des Projekts „**D**igital **W**eevil **D**etermination" wird erstmalig für die Phyllobiini mit den Gattungen *Argoptochus* Weise, 1883, *Oedecnemidius* K. Daniel, 1903, *Phyllobius* Germar, 1824 und *Pseudomyllocerus* Desbrochers des Loges, 1872 ein digitales und interaktives Bestimmungswerk als „Bilderschlüssel" in englischer und deutscher Sprache vorgelegt. Es werden **42** Arten der westpaläarktischen Region „Transalpina" berücksichtigt (das zoogeographische Gebiet nördlich der Pyrenäen, der Alpen und des Balkan-Gebirges; die östliche Abgrenzung orientiert sich grob am Verlauf der Ostgrenzen der aktuellen Mitgliedsstaaten der Europäischen Union). Jede Aussage im Schlüssel erfolgt zunächst als Bildinformation und wird erst in zweiter Linie - eher ergänzend - in Textform „übersetzt". Damit folgen wir einem Grundprinzip moderner entomologisch-taxonomischer Arbeiten: Im Lichtmikroskop das sehen, was die digitale Abbildung auf dem Monitor vergleichend bereithält! Die Arbeit enthält Angaben zur allgemeinen Biologie der Phyllobiini, zu jeder Art Verbreitungskarten und zu zahlreichen Arten Informationen zu den Wirtspflanzen. Folgender Vorschlag wird diskutiert (die bindenden nomenklatorischen Änderungen werden

ggf. im SNUDEBILLER*print* (ISSN 2197-3024) am 1. Dezember 2015 präsentiert): **Neue Synonyme (Vorschlag):** *Phyllobius lateralis stierlinensis* Desbrochers des Loges, 1872 **<syn. nov.>** (= *Phyllobius lateralis* Reiche & Saulcy, 1858); *Phyllobius alpinus* Stierlin, 1859 **<syn. nov.>** (= *Phyllobius xanthocnemus* Kiesenwetter, 1852).

[176] **Stüben, P.E., Bayer, Ch., Bahr, F., Sprick, P. & Behne, L. (2015):** Digital-Weevil-Determination for Curculionoidea of the West Palearctic: Transalpina: Phyllobiini - *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **16**, (241): 13 pp. – HTML –
(see: http://www.curci.de/?beitrag=241)

Abstract: In the framework of the '**D**igital **W**eevil **D**etermination' project a digital and interactive determination work for the tribe Phyllobiini with the genera *Argoptochus* Weise, 1883, *Oedecnemidius* K. Daniel, 1903, *Phyllobius* Germar, 1824 and *Pseudomyllocerus* Desbrochers des Loges, 1872 is presented for the first time as a pictorial key in both English and German. **42** species of the West Palaearctic region "Transalpina" (the eastern delimitation is orientated approximately along the eastern borderlines of the EU members) were taken into account. Information in the key is depicted visually and it is also - more traditionally - 'translated' into text. Thus, we follow a basic principle of modern entomological and taxonomical work: to see by light-optical microscope exactly what the digital image is displaying on the screen. Information on distribution, host plants and data on the general biology complete this work. The following **proposal** is discussed (see the binding new nomenclatural and taxonomic acts coming soon in SNUDEBILLER*print*, 1. December 2015, ISSN 2197-3024): **New Synonyms (proposal):** *Phyllobius lateralis stierlinensis* Desbrochers des Loges, 1872 **<syn. nov.>** (= *Phyllobius lateralis* Reiche & Saulcy, 1858); *Phyllobius alpinus* Stierlin, 1859 **<syn. nov.>** (= *Phyllobius xanthocnemus* Kiesenwetter, 1852).

[177] **Stüben, P.E. & Behne, L. (2015):** Die Curculionoidea (Coleoptera) La Palmas. - *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **16** (242): 86 pp. – HTML –
(see: http://www.curci.de/?beitrag=242)

Abstract: The Curculionoidea (Coleoptera) of La Palma, with 1285 photographs, 79 plates and 131 distribution maps. **20** new records of weevils are presented for the Canarian island La Palma. Digital photos of habitus and aedeagus (dorsal/ lateral) are given by focus stacking for all **135** species (scrollable, high resolution images. A complete checklist of all findings (primarily resulting from a field trip of the authors from 18.12.2013 - 28.1.2014) is compiled, and the distribution is mapped for all valid taxa. Finally, notes on each taxon are presented including giving taxonomical, ecological, distributional and other information. For **79** species observations on biology and host plants are presented in large, scrollable images. This illustrated list can be used for species determination and represents the first step towards an "Encyclopedia of Macaronesian Weevils" presented on the Internet (Le Charançon) within the next years. The following **proposals** are discussed (see the binding new nomenclatural and taxonomic acts in SNUDEBILLER*print*, 1. December 2015, ISSN 2197-3024): **1. New Synonyms**: *Pselactus capitulatus* (Wollaston, 1861) **<syn.nov.>** (= *Pselactus affinis* (Wollaston, 1861)); *Brachyderes rugatus sculpturatus* Wollaston, 1864 **<syn. nov.>** (= *Brachyderes rugatus rugatus* Wollaston, 1864); *Lepidapion spartocytisi* (Marshall, 1928) **<syn nov. >** (= *Lepidapion curvipilosum* (Wagner, 1908)); **2. Changes in rank**: *Echinodera hystrix benahoarita* (Stüben, 2000) **<stat. nov.>** (*E. hystrix* downgraded to subspecies status); *Ficusacalles ficvorator* (Stüben, 2007) **<stat. nov>** (*Ficusacalles senilis ficvorator* upgraded to species status); *Ficusacalles senilis* (Wollaston, 1864) **<stat. nov>** (*Ficusacalles senilis senilis* upgraded to its original species status); *Ficusacalles oceanicus* (Stüben 2002) **<stat. nov>** (*Ficusacalles senilis oceanicus* upgraded to species status); *Coelositona palmensis* (Har. Lindberg, 1953) **<stat. nov.>** (*Coelositona latipennis palmensis* upgraded to its original species status); *Coelositona latipennis* (Gyllenhal, 1834) **<stat. nov.>** (*Coelositona latipennis latipennis* upgraded to its original species status).

[178] **Stüben, P.E. (2015):** Zwei neue *Calacalles (Nanoacalles)*-Arten von La Palma (Kanarische Inseln). (Coleoptera: Curculionidae: Cryptorhynchinae) – SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea **16**, (243): 10 pp. – PDF –
http://www.curci.de/?beitrag=243

Abstract: The new species ***Calacalles citvorator* sp.n.** and ***C. montelunatus* sp.n.** of the western Palaearctic weevil genus *Calacalles* (Peyerimhoff, 1925) are described from Spain (Canary Islands: La Palma). These species are distinguished from the closely related species ***C. seticollis* Wollaston, 1864** (type locality: El Hierro) and the third species from La Palma, ***C. palmensis* (Roudier, 1954)**. The new species is included in a molecular analysis of the subgenus *Nanoacalles* using the mitochondrial COI-gene (Neighbour Joining tree). The genetic p-distances of the COI-gene to the closely related species from Macaronesia are presented in a map. The following new synonym is established: *Calacalles* (Nanoacalles) *agana* Stüben 2010 **syn. n.** from La Gomera (= *C. pumilio* Bahr, 2000, type locality: Tenerife). Finally, a key to the *Calacalles* species from La Palma is presented in German and English language.

[179] **Stüben, P.E. (2015):** *Auletobius (Canarauletes) garajonay* sp.n. from La Gomera (Canary Islands). (Coleoptera: Curculionoidea: Rhynchitidae) – *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **16**, (244): 8pp. – PDF –
http://www.curci.de/?beitrag=244

Abstract: A new species of the weevil genus *Auletobius* Desbrochers des Loges, 1869, ***Auletobius garajonay* sp.n.** is described from the Canary Island La Gomera (Spain). This species is distinguished from the closely related species ***A. cylindricollis* (Wollaston, 1864)** (locus typicus: La Palma). The new species was included in a molecular analysis of the subgenus ***Canarauletes* Legalov, 2007** (using the mitochondrial COI-gene). The p-distances of the COI-gene to the closely related species are presented here in a map and a Neighbor Joining tree.

[180] **Stüben, P.E. & Bayer, Ch. (2015):** New nomenclatural and taxonomic acts, and Comments (2015) – SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea **16**, (246): 8pp. – PDF – http://www.curci.de/?beitrag=246

Abstract: 1 New synonyms: *Brachyderes rugatus sculpturatus* Wollaston, 1864 **syn. nov.** (= *Brachyderes rugatus* Wollaston, 1864); *Ceuthorhynchidius cakilis* V. Hansen, 1917 **syn. nov.** (= *Curculio typhae* Herbst, 1795); *Ceutorhynchus intermedius* C. N. F. Brisout de Barneville, 1869 **syn. nov.** (= *Ceutorhynchus roberti* Gyllenhal, 1837); *Ceutorhynchus talickyi* Korotyaev, 1980 **syn. nov.** (=*Ceutorhynchus puncticollis* Boheman, 1845); *Apion spartocytisi* Marshall, 1928 **syn. nov.** (= *Apion curvipilosum* Wagner, 1908); *Otiorhynchus smreczynskii* Cmoluch, 1968 **syn. nov.** (= *Otiorhynchus rotundus* Marseul, 1872); *Phyllobius lateralis stierlinensis* Desbrochers des Loges, 1872 **syn. nov.** (= *Phyllobius lateralis* Reiche & Saulcy, 1858); *Rhyncolus capitulatus* Wollaston, 1861 **syn. nov.** and *Phloeophagus laurineus* Wollaston, 1861 **syn. nov.** (= *Phloeophagus affinis* Wollaston, 1861); *Sitona lateralis* Gyllenhal, 1834 **syn. nov.** (=*Sitona suturalis* Stephens, 1831); *Brachiodontus pseudoalpinus* Osella & Cornacchia 1974 **syn.** (remains a synonym of *Amalus alpinus* Hampe, 1866). **2. Resurrected names:** *Acalles abstersus* Boheman, 1837 **resyn.** (formerly a synonym of *Acalles roboris* Curtis, 1834); *Cionus villae* Comolli, 1837 **resyn.** (formerly a synonym of *Cionus alauda* Herbst, 1784). **3. Changes in rank and new combinations:** *Cionus villae* Comolli, 1837 **stat. nov.** (raised from a subspecies of *Cionus alauda* to species level); *Coelositona palmensis* (Har. Lindberg, 1953) **stat. nov**. and *Coelositona latipennis* (Gyllenhal, 1834) **stat. nov.** (from subspecies of *C. latipennis*); *Echinodera capbonensis diotti* (Stüben, 2010) **stat. nov.** (downgraded to subspecies); *Echinodera hystrix benahoarita* (Stüben, 2000) **stat. nov.** (downgraded to subspecies); *Ficusacalles ficvorator* (Stüben, 2007) **stat. nov.**, *Ficusacalles oceanicus* (Stüben 2002) **stat. nov.** and *Ficusacalles senilis* (Wollaston, 1864) **stat. nov.** (raised from a subspecies of *Ficusacalles senilis* to species level); *Hemitrichapion wagneri gomerense* Stüben & Behne, 2010 **stat. nov.** (downgraded to subspecies); Sirocalodes gandoni (Hoffmann, 1966) **comb. nov.** (from the genus *Ceutorhynchus*); **4. A neotype** of *Kyklioacalles granulicollis* Tournier 1875 (original genus: *Acalles*) from Marocco is designated.

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[181] **Stüben, P.E. & Krátký, J. (2016):** *Hesperorrhynchus glutinosus* sp.n. and *H. palmensis* sp.n. - with a review of all *Hesperorrhynchus* species from the Macaronesian Islands (Coleoptera: Curculionidae: Ceutorhynchinae) - An contribution to Integrative Taxonomy – *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **17**, (247): 12pp. – PDF – http://www.curci.de/?beitrag=247

Abstract: Two new species of the endemic Macaronesian weevil genus *Hesperorrhynchus* Peyerimhoff, 1926 are described from Madeira (Portugal) and La Palma (Spain, Canary Islands). These species are distinguished from the morphologically and molecularly closely related species *H. lineatotessellatus* (Wollaston, 1854) from Madeira (locus typicus: Ribeiro Frio) and *H. hesperus* (Wollaston, 1864) from the western Canary Islands (locus typicus: El Hierro). A lectotype for *H. lineatotessellatus* is designated. The new species was included in a molecular analysis of the genus *Hesperorrhynchus* (using the mitochondrial COI-gene). A Neighbour Joining tree is introduced with corrected p-distances for all species (all sequences are published on GenBank). Finally, a key to all *Hesperorrhynchus* species is given.

[182] **Stüben, P.E., Bayer, Ch., Bahr, F., Sprick, P. & Behne, L. (2016):** Digital-Weevil-Determination der westpaläarktischen Curculionoidea: Transalpina: *Anthonomini* - *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **17**, (248): 12 S. – HTML – http://www.curci.de/?beitrag=248

Zusammenfassung: Im Rahmen des Projekts „**D**igital **W**eevil **D**etermination" wird erstmalig für die Anthonomini mit den Gattungen *Anthonomus* Germar, 1817, *Brachonyx* Schoenherr, 1825 und *Bradybatus* Germar, 1824 ein digitales und interaktives Bestimmungswerk als „Bilderschlüssel" in englischer und deutscher Sprache vorgelegt. Es werden **30** Arten der westpaläarktischen Region „Transalpina" berücksichtigt (das zoogeographische Gebiet nördlich der Pyrenäen, der Alpen und des Balkan-Gebirges; die östliche Abgrenzung orientiert sich grob am Verlauf der Ostgrenzen der aktuellen Mitgliedsstaaten der Europäischen Union). Jede Aussage im Schlüssel erfolgt zunächst als Bildinformation und wird erst in zweiter Linie - eher ergänzend - in Textform „übersetzt". Damit folgen wir einem Grundprinzip moderner entomologisch-taxonomischer Arbeiten: Im Lichtmikroskop das sehen, was die digitale Abbildung auf dem Monitor vergleichend bereithält! Die Arbeit enthält Angaben zur allgemeinen Biologie der Anthonomini, zu jeder Art Verbreitungskarten und zu zahlreichen Arten Informationen zu den Wirtspflanzen. Mit **379** Farbaufnahmen, **61** Bildtafeln und **30** Verbreitungskarten.

[183] **Stüben, P.E., Bayer, Ch., Bahr, F., Sprick, P. & Behne, L. (2016):** Digital-Weevil-

Determination for Curculionoidea of the West Palearctic: Transalpina: *Anthonomini*. - *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **17**, (249): 11 pp. – HTML – http://www.curci.de/?beitrag=249

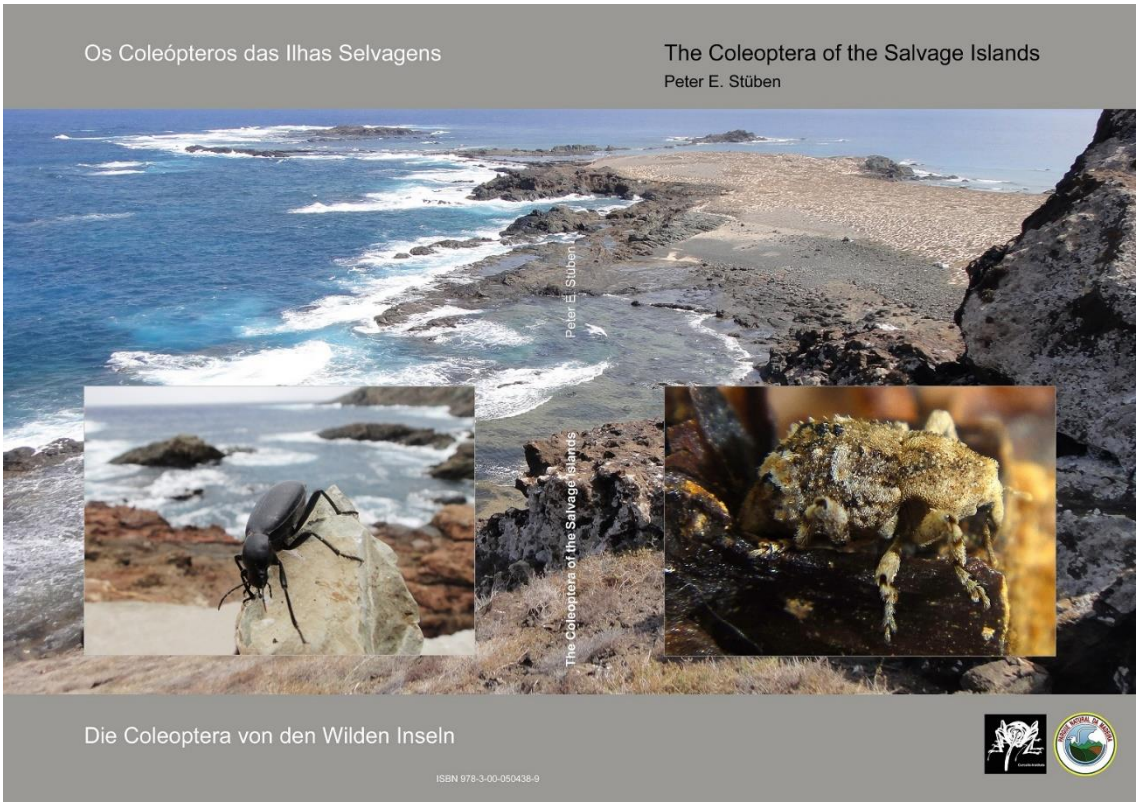
Abstract: In the framework of the '**D**igital **W**eevil **D**etermination' project a digital and interactive determination work for the tribe Anthonomini with the genera *Anthonomus* Germar, 1817, *Brachonyx* Schoenherr, 1825 and *Bradybatus* Germar, 1824 is presented for the first time as a pictorial key in both English and German. **30** species of the West Palaearctic region "Transalpina" (the eastern delimitation is orientated approximately along the eastern borderlines of the EU members) were taken into account. Information in the key is depicted visually and it is also - more traditionally - 'translated' into text. Thus, we follow a basic principle of modern entomological and taxonomical work: to see by light-optical microscope exactly what the digital image is displaying on the screen. Information on distribution, host plants and data on the general biology of the Anthonomini complete this work. With **379** coloured photos, **61** plates and **30** maps.

[184] **Stüben, P.E. (2016):** Die Curculionoidea (Coleoptera) von Fuerteventura. - *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **17**, (251): 38 pp. – HTML – http://www.curci.de/?beitrag=251

Abstract: The Curculionoidea (Coleoptera) of Fuerteventua, with 434 photographs, 50 plates and 74 distribution maps. **17** new records of weevils are presented for the Canarian island Fuerteventura. Digital photos of habitus and aedeagus (dorsal/ lateral) are given by focus stacking for all **78** species (scrollable, high resolution images, e.g. [Fig. LAPcal1M]). A complete checklist of all findings - primarily resulting from a field trip of the authors from 4.1. - 29.1.2015 - is compiled, and the distribution is mapped for all valid taxa. Finally, notes on each taxon are presented including taxonomical, ecological, distributional and other information. For **49** species observations on biology and host plants are presented in large, scrollable images (e.g. [Fig. SMIalbpau] [Fig. PENareA]). This illustrated list can be used for species determination and represents the first step towards a catalogue about "The Macaronesian Islands - an Encyclopedia of Curculionoidea" presented on the Internet (Le Charançon) in 2016.The following proposals are discussed (see the binding new nomenclatural and taxonomic acts in SNUDEBILLER*print*, 1. December 2017, ISSN 2197-3024): Designation of lectotypes for *Corimalia lunulata* (Wollaston, 1863) and *Coniocleonus variolosus* (Wollaston, 1864).

[185] **Stüben, P.E. (2016):** The Coleoptera of the Salvage Islands / Os Coleópteros das Ilhas Selvagens / Die Coleoptera von den Wilden Inseln, Curculio Institute: Mönchengladbach, 120 pp. **ISBN 978-3-00-050438-9**. – PDF –

Abstract: An illustrated book and catalogue on 'The Coleoptera of the Salvage Islands', with **278** colour photographs and 4 maps; published in three languages (English, Portuguese and German). Focus stacked photos of the habitus (dorsal/ lateral) are given for all **78** species. A complete checklist of all findings (primarily resulting from a field trip of the authors and their staff in 2014/2015) is compiled. The following 5 species (inclusive a new species) are new reports for the Salvage Islands (Ilhas Selvagens): *Stagetus cf. hirtus* (Wollaston, 1861), Anobiidae; *Amaurorhinus monizianus* (Wollaston, 1860), Curculionidae; *Entomoderus (Balearicola) cf. brevitarsis* (Wollaston, 1864), Curculionidae; *Aplocnemus zinoi* **spec. nov**., Dasytidae; *Atheta (Mocyta) cf. vagepunctata* (Wollaston, 1862), Staphylinidae. For the first time, the hostplant of *Ficusacalles oceanicus* (Stüben, 2002) is verified (*Patellifolia patellaris*, Amaranthaceae). Finally, notes on each taxon are presented, including taxonomic, ecological, distributional and other information. This illustrated catalogue can be used for species determination and represents the first step towards an "Encyclopedia of Macaronesian Weevils" presented on the Internet (Le Charançon) for the Curculionoidea within the next few years. The following taxonomical changes, based on morphological and molecular analyses, are implemented: 1. New synonyms: *Amaurorhinus clermonti* Desbrochers, 1908 = *Amaurorhinus clermonti salvagis* Folwaczny, 1972 **syn. nov**.; *Pentatemnus arenarius* Wollaston, 1861 = *Pentatemnus arenarius incognitus* Osella, 1978 **syn. nov**.; *Coptostethus oromii* (Cobos, 1978) = *Coptostethus selvagensis* Schimmel, 2010 *syn. nov*. = *Coptostethus putzeri* Schimmel, 2010 **syn. nov**. Lectotypes and paralectotypes of the following species are designated: *Rhytirrhinus brevitarsis* Wollaston, 1864, *Anthicus litoralis* Wollaston, 1854, *Haplocnemus sculpturatus* Wollaston, 1862 and *Haplocnemus vestitus* Wollaston, 1862.
Key words. Insects, Coleoptera, morphology, molecular analyses, taxonomy, new species, biology, ecology, hostplant, endemism, faunistics, distribution, Portugal, Madeira, Canary Islands, Ilhas Selvagens, Selvagem Grande, Selvagem Pequena, Ilhéu de Fora



[186] **Stüben, P.E. (2016):** The Macaronesian Islands - an Encyclopedia of Curculionoidea (Coleoptera). - *Le Charançon* (Internet journal): Available at http://www.curci.de [initiated in April 2016.].

[187] **Stüben, P.E. (2016):** *Ceutorhynchus descurainiae* sp.n. von La Gomera und Tenerife (Kanarische Inseln) (Coleoptera: Curculionidae: Ceutorhynchinae). – *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **17**, No. **252**: 9 S., CURCULIO-Institute: Germany, Mönchengladbach. – PDF – http://www.curci.de/?beitrag=252

Abstract: *Ceutorhynchus descurainiae* sp.n. is described from Spain (Canary Islands: La Gomera and Tenerife). This species is distinguished from the closely related species ***Ceutorhynchus canariensis* Lindberg, 1950** (type locality: Fuerteventura) and the widespread species ***Ceutorhynchus pyrrhorhynchus* (Marsham, 1802)**, distributed throughout Europe and North Africa. The new species is included in a molecular analysis of the related species using the DNA barcoding area of the mitochondrial COI-gene (Neighbour Joining tree). The genetic p-distances of the COI gene to these species from the Canary Islands are presented in a map. The host plant of the new species is *Descurainia millefolia*. Finally, a key to all Canarian species of the genus *Ceutorhynchus* is provided in English language.

[188] **Stüben, P.E., Bayer, Ch., Bahr, F., Sprick, P. ,Braunert, C. & Behne, L. (2016):** **D**igital-**W**eevil-**D**etermination der westpaläarktischen Curculionoidea: **Transalpina: Apionidae I** - Apionini & Ceratapiini. -*SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **17**, No.**253:** 26 S., CURCULIO-Institute: Mönchengladbach. – HTML – http://www.curci.de/?beitrag=253

Zusammenfassung: Im Rahmen des Projekts „**D**igital **W**eevil **D**etermination" wird erstmalig für die Triben Apionini und Ceratapiini (Apionidae Teil I) mit den Gattungen *Acentrotypus* Alonso-Zarazaga, 1990, *Apion* Herbst, 1797, *Ceratapion* Schilsky, 1901, *Diplapion* Reitter, 1916, *Omphalapion* Schilsky, 1901 und *Taphrotopium* Reitter, 1916 ein digitales und interaktives Bestimmungswerk als „Bilderschlüssel" in englischer und deutscher Sprache vorgelegt. Es werden **36** Arten der westpaläarktischen Region „Transalpina" berücksichtigt (für die Zusammenstellung der Arten wurde das zoogeographische Gebiet nördlich der Pyrenäen, der Alpen und des Balkan-Gebirges berücksichtigt; die östliche Abgrenzung orientiert sich grob am Verlauf der Ostgrenzen der aktuellen Mitgliedsstaaten der Europäischen Union). Jede Aussage im Schlüssel erfolgt zunächst als Bildinformation und wird erst in zweiter Linie - eher ergänzend - in Textform „übersetzt". Damit folgen wir einem Grundprinzip moderner entomologisch-taxonomischer Arbeiten: Im Lichtmikroskop das sehen, was die digitale Abbildung auf dem Monitor vergleichend bereithält! Die Arbeit enthält Angaben zur allgemeinen Biologie der Apionini und Ceratapiini, zu jeder Art Verbreitungskarten und zu zahlreichen Arten Informationen zu den Wirtspflanzen. **Mit 377** Farbaufnahmen, **73** Bildtafeln und **36** Verbreitungskarten.

[189] **Stüben, P.E., Bayer, Ch., Bahr, F., Sprick, P. ,Braunert, C. & Behne, L. (2016):** **D**igital-**W**eevil-**D**etermination for Curculionoidea of the West Palearctic:**Transalpina: Apionidae I** - Apionini & Ceratapiini.- *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **17**, No.**254:** 26 pp., CURCULIO-Institute: Mönchengladbach. – HTML – http://www.curci.de/?beitrag=254

Abstract: In the framework of the '**D**igital **W**eevil **D**etermination' project a digital and interactive determination work for the tribes Apionini und Ceratapiini (Apionidae part I) with the genera *Acentrotypus* Alonso-Zarazaga, 1990, *Apion* Herbst, 1797, *Ceratapion* Schilsky, 1901, *Diplapion* Reitter, 1916, *Omphalapion* Schilsky, 1901 and *Taphrotopium* Reitter, 1916 is presented for the first time as a pictorial key in both English and German. **36** species of the West Palaearctic region "Transalpina" (the eastern delimitation is orientated approximately along the eastern borderlines of the EU members) were taken into account. Information in the key is depicted visually and it is also - more traditionally - 'translated' into text. Thus, we follow a basic principle of modern entomological and taxonomical work: to see by light-optical microscope exactly what the digital image is displaying on the screen. Information on distribution, host plants and data on the general biology of the Apionini und Ceratapiini complete this work. With **377** coloured photos, **73** plates and **36** maps.

[190] **Stüben, P.E., Schütte, A., López, H., Astrin, J. (2016):** Molecular and morphological systematics of soil-inhabiting Cryptorhynchinae of the genus *Acallorneuma* and the tribe Torneumatini (Coleoptera: Curculionidae), with description of two new species. - *Contribution to Entomology* **66** (2): 169-199. – PDF –

Summary: Starting from an ecological classification of the morphotypes of apterous western Palaearctic Cryptorhynchinae, molecular systematic and morphological results for the monophyletic weevil genus *Acallorneuma* Mainardi, 1906 and the tribe Torneumatini Bedel, 1884 are presented. Based on the mitochondrial CO1 barcoding region, we discuss the limits of comparative morphology in the uniform *Acallorneuma* species. A catalogue and a pictorial key of all 8 species of *Acallorneuma* are provided. In a second step we compare morphology-based systematics of the genus *Acallorneuma* with our molecular reconstruction. Finally, we focus on the related blind, equally wingless and uniform, currently 71 species of the tribe Torneumatini living deep in the soil. This overview of the present state of research shows that molecular intrageneric resolution is highly dependent on the number of sampled species, especially in those cases with particularly long edges in the dendrogram. But although Torneumatini sampling was not complete due to the elusiveness of these subterranean species, some taxonomic changes could still be implemented: *Torneuma* s. str. with the type species *Torneuma caecum* Wollaston, 1860 occurs only on the Madeira archipelago. The species of the subgenus *Paratyphloporus* Solari, 1937 stat. nov. - only from the western Canary Islands(!) - must be transferred into the genus subgenus *Paratorneuma* Roudier, 1956 stat. nov. For all other species of the Mediterranean area and the eastern Canary Islands, the systematic classification needs to be remade (incertae sedis, see also appendix 2). *Torneuma deplanatum deplanatum* (Hampe, 1864) is the type species of the subgenus *Typhloporus* that includes some, but not all Mediterranean species with a constantly deep and wide pectoral canal, which - as it now seems likely – was developed several times. Two new species are described: *Torneuma* (s. str.) *isambertoi* Stüben spec. nov. from Madeira and *Torneuma* (s.l.) *cadizensis* Stüben spec. nov. from the south of Spain. In both cases keys are given to differentiate from the closely related species.

2017

[191] **Stüben, P.E., Bayer, Ch., Sprick, P. & Braunert, C. (2017):** **D**igital-**W**eevil-**D**etermination der westpaläarktischen Curculionoidea: **Transalpina: Apionidae II** - Aplemonini, Aspidapiini, Malvapiini & Ixapiini. - *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **18**, No.**258**: 27 S., CURCULIO-Institute: Mönchengladbach. – HTML – http://www.curci.de/?beitrag=258

Zusammenfassung: Im Rahmen des Projekts „**D**igital **W**eevil **D**etermination" wird erstmalig für die Triben Aplemonini, Aspidapiini, Malvapiini und Ixapiini (Apionidae Teil II) ein digitales und interaktives Bestimmungswerk als „Bilderschlüssel" in englischer und deutscher Sprache vorgelegt. Es werden 40 Arten und Unterarten der westpaläarktischen Region „Transalpina" berücksichtigt (für die Zusammenstellung der Arten wurde das zoogeographische Gebiet nördlich der Pyrenäen, der Alpen und des Balkan-Gebirges berücksichtigt; die östliche Abgrenzung orientiert sich grob am Verlauf der Ostgrenzen der aktuellen Mitgliedsstaaten der Europäischen Union). Lecto- und Paralectotypen werden für das Taxon *Apion connexum* Schilsky, 1902 designiert (endgültige Designation siehe SNUDEBILLER*print*, Dezember 2017), und diese werden erstmalig photographisch dokumentiert. - Jede Aussage im Schlüssel erfolgt zunächst als Bildinformation und wird erst in zweiter Linie - eher ergänzend - in Textform „übersetzt". Damit folgen wir einem Grundprinzip moderner entomologisch-taxonomischer Arbeiten: Im Lichtmikroskop das sehen, was die digitale Abbildung auf dem Monitor vergleichend bereithält! Die Arbeit enthält Angaben zur allgemeinen Biologie der Arten zu den oben genannten Triben und deren Wirtspflanzen. Mit 440 Farbaufnahmen, 70 Bildtafeln und 38 Verbreitungskarten.

[192] **Stüben, P.E., Bayer, Ch., Sprick, P. & Braunert, C. (2017):** **D**igital-**W**eevil-**D**etermination for Curculionoidea of the West Palearctic: **Transalpina: Apionidae II** - Aplemonini, Aspidapiini, Malvapiini & Ixapiini. - *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **18**, No.**259**: 27 pp., CURCULIO-Institute: Mönchengladbach. – HTML –

http://www.curci.de/?beitrag=259

Abstract: In the framework of the '**D**igital **W**eevil **D**etermination' project a digital and interactive determination work for the tribes Aplemonini, Aspidapiini, Malvapiini and Ixapiini (Apionidae part II) is presented for the first time as a pictorial key in both English and German. **40** species and subspecies of the West Palaearctic region "Transalpina" (the eastern delimitation is orientated approximately along the eastern borderlines of the EU members) were taken into account. Lecto- and paralectotypes are designated for *Apion connexum* Schilsky, 1902 (finally published in SNUDEBILLER*print*, December 2017) and they are photographically presented here for the first time. - Information in the key is depicted visually and it is also - more additionally - 'translated' into text. Thus, we follow a basic principle of modern entomological and taxonomical work: to see by light-optical microscope exactly what the digital image is displaying on the screen. Information on distribution, host plants and data on the general biology of the species of the above-mentioned tribes complete this work. With 440 coloured photos, 70 plates and 38 maps.

[193]Stüben, P.E. (2017): Die Curculionoidea (Coleoptera) von den Inseln Madeiras und den Selvagens. - *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **18**, No. **261:** 92 S., CURCULIO-Institute: Mönchengladbach. – HTML – http://www.curci.de/?beitrag=261

Abstract: The Curculionoidea (Coleoptera) of the Madeira archipelago and the Salvage Islands, with 1127 photographs, 117 plates and 180 distribution maps. **22** new records of weevils are presented for the Madeira archipelago (Madeira, Ilhas Desertas and Porto Santo) and the Salvage Islands. Digital photos of habitus and aedeagus (dorsal/ lateral) are given by focus stacking for all **196** species (scrollable, high resolution images (e.g. [Fig. DENorn.1])). A complete checklist of all findings (primarily resulting from numerous field trip of the authors between 2000 and 2016) is compiled, and the distribution is mapped for all valid taxa. Finally, notes on each taxon are presented including taxonomical, ecological, distributional and other information. For **96** species observations on biology and host plants are presented in large, scrollable images (e.g. [Fig. AMAmonB] [Fig. HOLrot]). This illustrated list can be used for species determination and represents the first step towards the Internet catalogue "The Macaronesian Islands - an Encyclopedia of Curculionoidea (Coleoptera)" presented in the Internet journal 'Le Charançon' (CURCI) within the next years. Further records of weevils are highly desirable. The illustrated catalogue concludes with a call for cooperation to take an active part in the establishment, development and continuation of this Internet catalogue: http://www.curci.de/institute3/catalogue_2/catalogue_2.php The following **proposals** are discussed (see the binding new nomenclatural and taxonomic acts in SNUDEBILLER*print*, 1. December 2017, ISSN 2197-3024): **1. New Synonyms**: *Caulotrupis subnitidus* Wollaston, 1860 **<syn nov.>** (= *Caulotrupis lacertosus* Wollaston, 1854); *Caulotrupis terebrans* Wollaston, 1854 **<syn. nov.>** (= *Caulotrupis impius* Wollaston, 1854); *Rhopalomesites palmi* Folwaczny, 1979 **<syn. nov.>** (= *Rhopalomesites euphorbiae* (Wollaston, 1854). **2. Changes in rank**: *Madeiracalles terminalis tolpis* (Stüben, 2002) **<stat. nov.>** (*M. tolpis* downgraded to subspecies status); *Kalcapion sagittiferum* (Wollaston, 1854) **<stat. nov.>** (*K. semivittatum sagittiferum* (Wollaston, 1854) upgraded to species status).**3. Designation of lectotypes:** *Pachytychius robustus* (Wollaston, 1854) (Tychius), *Rhopalomesites maderensis* (Wollaston, 1854) (Mesites), *Kalcapion semivittatum sagittiferum* (Wollaston, 1854) (*Apion*); *Caulotrupis chevrolati* Wollaston, 1854; *Caulotrupis conicollis* Wollaston, 1854; *Caulotrupis impius* Wollaston, 1854; *Caulotrupis lacertosus* Wollaston, 1854; *Caulotrupis lucifugus* Wollaston, 1854; *Caulotrupis opacus* Wollaston, 1854; *Caulotrupis pyricollis* Wollaston, 1871; *Caulotrupis subnitidus* Wollaston, 1860; *Caulotrupis terebrans* Wollaston, 1854; *Leipommata calcarata* Wollaston, 1857. The designations of lectotypes of the *Caulotrupis* species are in preparation of a revision of the genus *Caulotrupis* Wollaston, 1854 from the Madeira archipelago.

[194] Stüben, P.E., Bayer, Ch., Bahr, F., Sprick, P. & Braunert, C. & Behne, L. (2017): **D**igital-**W**eevil-**D**etermination der westpaläarktischen Curculionoidea: **Transalpina: Apionidae III** - Kalcapiini, Oxystomatini (Oxystoma & schwarze Arten). - *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **18**, No.**263:** 33 S., CURCULIO-Institute: Mönchengladbach. – HTML – http://www.curci.de/?beitrag=263

Zusammenfassung: Im Rahmen des Projekts „**D**igital **W**eevil **D**etermination" wird erstmalig für die Triben *Kalcapiini, Oxystomatini* (*Oxystoma* & schwarze Arten) (Apionidae Teil **III**) ein digitales und interaktives Bestimmungswerk als „Bilderschlüssel" in englischer und deutscher Sprache vorgelegt. Bei Zweifel im Hinblick auf die Farbeinschätzung der *Oxystomatini* erfolgt eine doppelte Berücksichtigung der Arten im nächsten Bilderschlüssel; dazu siehe SNUDEBILLER 19/2018: Apionidae **IV**. Es werden **64** Arten und Unterarten der westpaläarktischen Region „Transalpina" berücksichtigt. Für die Zusammenstellung der Arten wurde das zoogeographische Gebiet nördlich der Pyrenäen, der Alpen und des Balkan-Gebirges zugrunde gelegt Die östliche Abgrenzung orientiert sich grob am Verlauf der Ostgrenzen der aktuellen Mitgliedsstaaten der Europäischen Union. Jede Aussage im Schlüssel erfolgt zunächst als Bildinformation und wird erst in zweiter Linie - eher ergänzend - in Textform „übersetzt". Damit folgen wir einem Grundprinzip moderner entomologisch-taxonomischer Arbeiten: Im Lichtmikroskop das sehen, was die digitale Abbildung auf dem Monitor vergleichend bereithält! Wir schlagen vor, das Taxon *Apion serpyllicola* Wencker, 1864 mit *Squamapion minutissimum* (Rosenhauer, 1856) zu synonymiseiren, da es sich morphologisch von dieser Art nicht trennen läßt. Die Arbeit enthält Angaben zur Biologie der Arten der *Kalcapiini* und *Oxystomatini,* und zu jeder Art werden Verbreitungskarten vorgestellt. Mit **360** Farbaufnahmen, **92** Bildtafeln und **64** Verbreitungskarten.

[195] Stüben, P.E., Bayer, Ch., Bahr, F., Sprick, P. & Braunert, C. & Behne, L. (2017): **D**igital-**W**eevil-**D**etermination for Curculionoidea of the West Palearctic: **Transalpina: Apionidae III** - Kalcapiini, Oxystomatini (Oxystoma & schwarze Arten). - *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **18**, No.**264:** 32 pp., CURCULIO-Institute:

Mönchengladbach. – HTML –
http://www.curci.de/?beitrag=264

Abstract: In the framework of the '**D**igital **W**eevil **D**etermination' project a digital and interactive determination work for the tribes *Kalcapiini, Oxystomatini* (*Oxystoma* & black species) (Apionidae part **III**) is presented for the first time as a pictorial key in both English and German. In case of doubt regarding the colour (elytra black or blue) in Oxystomatini, these species are considered twice in the following pictorial key (see SNUDEBILLER 19/2018: Apionidae **IV**). **64** species and subspecies of the West Palaearctic region "Transalpina" - the zoogeographical region north of the Alps, the Pyrenees and the Balkan mountains (the eastern delimitation is orientated approximately along the eastern borderlines of the EU members) [Fig. Transalpina] - were taken into account. Information in the key is depicted visually and it is also - more traditionally - 'translated' into text. Thus, we follow a basic principle of modern entomological and taxonomical work: to see by light-optical microscope exactly what the digital image is displaying on the screen. We suggest that *Apion serpyllicola* Wencker, 1864 is a synonym of *Squamapion minutissimum* (Rosenhauer, 1856) based on morphological assessments. Information on distribution, host plants and data on the general biology of the *Kalcapiini* und *Oxystomatini* complete this work. With **360** coloured photos, **92** plates and **64** maps.

[196] **Telfer, M.G. & Stüben P.E. (2017):** *Onyxacalles gibraltarensis* Stüben, 2002 (Curculionidae) new to Britain. - *The Coleopterist* **26**(1): 1-6. – PDF –

[197] **Haran, J., Stüben, P.E. & Friedman, A. (2017):** An illustrated key of the *Smicronyx* of Israel (Coleoptera: Curculionidae: Smicronychini). - *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* 18, No. **262**: 4 pp., CURCULIO-Institute: Mönchengladbach. – HTML –
http://www.curci.de/?beitrag=262
Abstract: *Smicronyx* (Coleoptera: Curculionidae: Smicronychini) is a genus still poorly known in the Western Palearctic region, in particular due to small size of species and the lack of stable morphological characters within species. Following the revision of the Israeli species, we provide here an illustrated key to facilitate the identification of species occurring in this area together with imaging of male genitalia, biotopes and distribution. As the majority of species of *Smicronyx* from that country have a wide distribution through the Western Palearctic region (mainly through the Mediterranean area), this note provides a preliminary key for some of the most widespread species.

[198] **Stüben, P.E. (2017):** New nomenclatural and taxonomic acts, and Comments (2016/2017). - *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **18**, No. **265**: 16 pp., CURCULIO-Institute: Mönchengladbach. – PDF –
http://www.curci.de/?beitrag=265
Abstract: A. New synonyms: *Caulotrupis subnitidus* Wollaston, 1860 **syn nov** (= *Caulotrupis lacertosus* Wollaston, 1854); *Caulotrupis terebrans* Wollaston, 1854 **syn. nov.** (= *Caulotrupis impius* Wollaston, 1854); *Rhopalomesites palmi* Folwaczny, 1979 **syn. nov.** (= *Rhopalomesites euphorbiae* (Wollaston, 1854). **B. Changes in rank:** *Madeiracalles terminalis tolpis* (Stüben, 2002) **stat. nov.** (*M. tolpis* downgraded to subspecies status); *Kalcapion sagittiferum* (Wollaston, 1854) **stat. nov.** (*K. semivittatum sagittiferum* (Wollaston, 1854) upgraded to species status); *Kalcapion fortunatum* (Roudier, 1963) **stat. nov**. (*K. semivittatum fortunatum* (Roudier, 1963) upgraded to species status). **C. Designation of lectotypes:** *Pachytychius robustus* (Wollaston, 1854) (Tychius), *Rhopalomesites maderensis* (Wollaston, 1854) (Mesites), *Kalcapion semivittatum sagittiferum* (Wollaston, 1854) (*Apion sagittiferum*); *Caulotrupis chevrolati* Wollaston, 1854; *Caulotrupis conicollis* Wollaston, 1854; *Caulotrupis impius* Wollaston, 1854; *Caulotrupis lacertosus* Wollaston, 1854; *Caulotrupis lucifugus* Wollaston, 1854; *Caulotrupis opacus* Wollaston, 1854; *Caulotrupis pyricollis* Wollaston, 1871; *Caulotrupis subnitidus* Wollaston, 1860; *Caulotrupis terebrans* Wollaston, 1854; *Leipommata calcarata* Wollaston, 1857. The designations of lectotypes of the *Caulotrupis* species are in preparation of a revision of the genus *Caulotrupis* Wollaston, 1854 from the Madeira archipelago.

[199] **Stüben, P.E. (2017):** Editorial. - Entomology: a scientific picture world? - *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **17/18**: 1-10.-PDF - – HTML –
https://www.curci.de/?editorial=27&lang=en

2018

[200] **Stüben, P.E. (2018):** Publications 1994-2017, descriptions and scientific illustrations (reprints), - *ZooVITA 2, Studies on taxonomy, biology and ecology* (DVD), ISSN 1867-5921, published: 1.1.2018.

[201] Stüben, P.E. (2018): Fake News aus Madrid – oder wie halten wir es mit Wahrheit und Kollegialität? / Fake News from Madrid - or how are we dealing with truth and collegiality? - *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **19**, No.266: 6 pp., CURCULIO-Institute: Mönchengladbach. . – PDF –

[202] Stüben, P.E., Bayer, Ch., Sprick, P. & Braunert, C. & Behne, L. (2018): Digital-**W**eevil-**D**etermination der westpaläarktischen Curculionoidea: **Transalpina: Apionidae IV** - Oxystomatini pars (blau oder grünlich schimmernde Arten). *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea 19*, No.**267**: 29 S., CURCULIO-Institute: Mönchengladbach. – HTML – http://www.curci.de/?beitrag=267

[203] Stüben, P.E., Bayer, Ch., Sprick, P. & Braunert, C. & Behne, L. (2018): Digital-**W**eevil-**D**etermination for Curculionoidea of the West Palearctic: **Transalpina: Apionidae IV** - Oxystomatini pars (blue and greenish species). *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **19**, No.**268**: 29pp., CURCULIO-Institute: Mönchengladbach. – HTML - http://www.curci.de/?beitrag=268

Abstract: In the framework of the 'Digital Weevil Determination' project a digital and interactive determination work for the tribe Oxystomatini (blue and greenish species) (Apionidae part) is presented for the first time as a pictorial key in both German and English. The species of Oxystomatini with black elytra have already included in Apionidae part **III**, SN18/2017. **37** species and subspecies of the West Palaearctic region "Transalpina" - the zoogeographical region north of the Alps, the Pyrenees and the Balkan mountains (the eastern delimitation is orientated approximately along the eastern borderlines of the EU members) [Fig. Transalpina] - were taken into account. Information in the key is depicted visually and it is also - more traditionally - 'translated' into text. Thus, we follow a basic principle of modern entomological and taxonomical work: to see by light-optical microscope exactly what the digital image is displaying on the screen. Information on distribution, host plants and data on the general biology of the Oxystomatini with blue, violet, greenish or bronze, metallic elytra complete this work. With **459** coloured photos, **105** plates and **37** maps.

[204] Stüben, P.E. (2018): Die Curculionoidea (Coleoptera) von El Hierro. - *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **19**, No. **269**: 56 pp., CURCULIO-Institute: Mönchengladbach. – HTML – http://www.curci.de/?beitrag=269

[205] Germann, Ch., Kakiopoulos, G., Braunert, B. & Stüben, P.E. (2018): Rüsselkäfer (Coleoptera: Curculionoidea) vom Nestos-Delta bis zu den südlichen Rhodopen - erste Einblicke in die Ergebnisse der Jahresexkursion 2016 des Curculio-Instituts nach Nordgriechenland (Thrakien). - *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **19**, No. **270**: 10 pp., CURCULIO-Institute: Mönchengladbach. – HTML – http://www.curci.de/?beitrag=270

[206] Stüben, P.E. & Schütte, A. (2018): Revision of the genus *Caulotrupis* from Macaronesian Islands (Coleoptera: Curculionidae: Cossoninae). - *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **19**, No 272: 38 pp., CURCULIO-Institute: Mönchengladbach. – HTML – https://www.curci.de/?beitrag=272

Abstract. An illustrated revision of the genus *Caulotrupis* Wollaston, 1854 is presented from the Madeira, Salvage and Azores archipelago. Focus-stacked photos of the habitus (dorsal / lateral), the aedeagi (ventral / lateral) and the female genitalia are given for all 18 species. Besides short morphological descriptions and differential diagnoses, the main focus of this contribution to Integrative Taxonomy is on species identification (barcoding) and the reconstruction of the intrageneric relationship using molecular results (mtDNA, COI). In addition to the collection-data and the GenBank accession numbers, the appendix contains all CO1 sequence data of this study in fasta format and raw data files in a zip container for downloading. The distribution of every species is depicted on maps and interesting photos taken in their natural habitat are presented for some species. - This revision picks up the description of 8 new (sub)species of the genus *Caulotrupis* published almost simultaneously in Contribution to Entomology (68(1), 2018). In addition to this study we present here a suggestion of taxonomical changes, based on morphological and molecular analyses: *Caulotrupis mauli* (Folwaczny, 1972) <comb. n.> (formerly *Salvagopselactus* syn. n.). From a morphological point of view, we have considerable concerns that the species *Caulotrupis parvus* Israelson, 1985 from the Azores really belongs to the genus *Caulotrupis*.

[207] Stüben, P.E. (2018): *Pseudocaulotrupis* gen. nov. and two new species in the Azores (Coleoptera: Curculionidae: Cossoninae) – *SNUDEBILLERprint* **19**, No. 274: 8 pp., Zoobank: C18BB46E-2014-4F79-A6E4-8B8B9B750F14. – PDF –

[208] Stüben, P.E. (2018): Kritische Anmerkungen zu den neuen Curculionoidea-Katalogen - nomenklatorische und taxonomische Änderungen (2018), (Coleoptera, Curculionoidea) – *Snudebiller* **19**, No. 275: 13 pp., CURCULIO-Institute: Germany, Mönchengladbach. – PDF –

[209] Stüben, P.E. (2018): Beschreibung neuer Arten aus der Gattung *Caulotrupis* Wollaston, 1854 (Coleoptera: Curculionidae: Cossoninae) von den Makaronesischen Inseln. – *Contribution to Entomology* **68**(1): 83-96. – PDF –

[210] Stüben, P.E. (2018): The Cryptorhynchinae of the Western Palearctic / Die Cryptorhynchinae der Westpaläarktis (Coleoptera: Curculionidae). Curculio Institute: Mönchengladbach, **518 pp.** published: 1.2.2018.

Digital reprint:

[210a] Part 1: Contents / Introduction / Genera / Acollocrates / Acalles. – PDF –
[210b] Part 2: Kyklioacalles / Dichromacalles / Onyxacalles / Elliptacalles. – PDF –
[210c] Part 3: Acallorneuma / Torneumatini / Echinodera. – PDF –
[210d] Part 4: Calacalles / Canariaacalles / Pseudodichromacalles / Aeoniacalles / Sonchiacalles / Ficusacalles. – PDF –
[210e] Part 5: Silvacalles / Dendroacalles / Madeiracalles / Catalogue / References / Taxonomic Index. – PDF –

Abstract: An illustrated monograph on 'The Cryptorhynchinae of the Western Palearctic', with **3999** photographs mounted on **871** plates, **416** maps, **30** dendrograms and it is published in two languages (English and German) on **518** pages.
Focus-stacked photos of the habitus (dorsal / lateral) and the aedeagi (ventral / lateral) are given for all **394** species; with notes on ecology, biology and molecular biology, taxonomy and phylogenetic systematics. The distribution of every species is depicted on maps, and interesting photos taken in their natural habitat are presented for most species . Introductory texts on the higher taxa report on the current state of research, and keys are given to each genus with numerous different images to quickly and precisely identify the species. DNA sequences (16S, 28S) of nearly three quarters of all species and the barcoding gen CO1 for **334** of all 394 species were deposited in GenBank by the author. Bayes Trees as well as Maximum-Likelihood Trees and Neighbour Joining Trees are presented for all genera. This illustrated handbook presents itself as contribution to an Integrative Taxonomy. **15** species are newly described: *Acalles ossetiensis* **n. sp.** (Russia), *Kyklioacalles oblongus* **n. sp.** (Spain), *Madeiracalles beelzebubi* **n. sp.** (Madeira), *Madeiracalles succulentus* **n. sp.** (Madeira), *Echinodera (Ruteria) hetthei* **n. sp.** (Turkey), *Echinodera jandiaensis* **n. sp** (Fuerteventura, Lanzarote), *Echinodera maltensis* **n.sp.** (Malta), *Calacalles manriquei* **n.sp.** (Lanzarote), *Echinodera varroi* **n. sp.** (Italy), *Echinodera hoceimaensis* **n. sp.** (Morocco), *Onyxacalles georgius* Stüben & Kratky **n. sp.** (Georgia), *Pseudodichromacalles pericallis* **n.sp.** (El Hierro), *Silvacalles spinosus* **n. sp.** (La Palma, Tenerife), *Echinodera kratkyi* **n. sp.** (Gran Canaria) and *Torneuma alexi* **n. sp.** (Gran Canaria). The new genus *Caucasusacalles* **n. gen.** is described. The following taxonomical changes, based on morphological and molecular analyses, are implemented: **1. New synonyms/resyn.:** *Onyxacalles amasyaensis* Wolf, 2001 **syn. nov.** (= *Onyxacalles denominandus* (A. & F. Solari, 1907) [Acalles]); *Torneuma subterraneum* Fairmaire, 1873 **syn. nov.** (=*Torneuma robustum* (Dieck, 1869) [Crypharis]); *Torneuma siculum elegantulum* Normand, 1937 **syn. nov.** (= *Torneuma siculum* Ragusa, 1881); *Calacalles zumpti* (Uyttenboogaart, 1939: 209) **resyn.** (formerly *C. seticollis*). **2. Changes in rank:** *Echinodera capbonensis diottii* Stüben, 2010 **stat. nov.** (*E.diottii* downgraded to subspecies status); *Calacalles droueti azoricus* Stüben, 2004: 46 **stat. nov.** (*C azoricus* downgraded to subspecies status); *Torneuma abbazzii* Stüben, 2007 **stat. nov.** (*T. deplanatum abbazzii* upgraded to species status); *Torneuma teuladense* Stüben, 2007 **stat. nov**. (*T. deplanatum teuladense* upgraded to species status); *Torneuma theryi* Desbrochers, 1889 **stat. nov.** (*T. conexiusculum theryi* upgraded to species status); *Torneuma alhaurinense* Stüben, 2008 **stat. nov.** (*T. istanense alhaurinense* upgraded to species status). **3. New combinations:** *Echinodera (Ruteia) berkanensis* Stüben, 2002 **comb. nov.** (formerly *Echinodera* s.str.); *Kyklioacalles clermonti* (A. & F. Solari, 1905) **comb. nov.** (formerly *Acalles* s.str.); *Kyklioacalles pulchellus* (H. Brisout de Barneville, 1864) **comb. nov.** (formerly Acalles s.str.); *Onyxacalles caucasicus* (Reitter, 1891) **comb. nov.** (formerly *Acalles* s.str.); *Onyxacalles ganglbaueri* (A. & F. Solari, 1907) **comb. nov.** (formerly *Acalles* s.str.); *Caucasusacalles lederi* (Meyer, 1896) **comb. nov.** (formerly *Acalles* s.str.). A current catalogue of alle species of the subfamily Cryptorhynchinae Schoenherr, 1825, is presented (state 1.2.2018). A DVD of the published series 'ZooVita 2' (ISSN 1867-5921) can be found as an annex (which can also be used for hard drive installation). It contains all 200 publications of the author (reprints as PDF or HTML), all high resolution images of the species in their original size (many descriptions of characteristics, given in the keys of the book, can be easily followed and verified in this way) and an overall view of all 182 valid taxa that were described by the author. This reference book, a synopsis after two decades to advance research on the Western Palaearctic Cryptorhynchinae, allows scientists as well as collectors and newcomers a quick navigation of the high number of species.

[211a] **Stüben, P.E. (2018):** Die Curculionoidea (Coleoptera) von Lanzarote. - **SNUDEBILLER**: Studies on taxonomy, biology and ecology of Curculionoidea **19**, No **271:** 33 pp., CURCULIO-Institute: Mönchengladbach. – HTML – http://www.curci.de/?beitrag=271

[211b] **Borges P, Gabriel R, Pimentel C, Brito M, Serrano A, Crespo L, Assing V, Stüben P E, Fattorini S, Soares A, Mendonça E, Nogueira E (2018): Biota from the coastal wetlands of Praia da Vitória (Terceira, Azores, Portugal):** Part 1 - Arthropods. Biodiversity Data Journal 6:

e27194. https://doi.org/10.3897/BDJ.6.e27194 / ZooBank: urn:lsid:zoobank.org:pub:5E3CF42C-61F5-4D8A-A709-E245E07E2AA3. – PDF –

2019

[212] Stüben, P.E., Bayer, Ch., Bahr, F., Sprick, P., Braunert, C. & Behne, L. (2019): Digital-Weevil-Determination der westpaläarktischen Curculionoidea: Transalpina: Apionidae V - -Piezotrachelini, Exapiini Metapiini und Synapiina, pars. - *SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea* **20**, No.276: 32., CURCULIO-Institute: Mönchengladbach. . – HTML – https://www.curci.de/?beitrag=276

[213] Stüben, P.E., Bayer, Ch., Bahr, F., Sprick, P., Braunert, C. & Behne, L. (2019): Digital-Weevil-Determination for Curculionoidea of the West Palearctic: Transalpina: Apionidae V - Piezotrachelini, Exapiini, Metapiini and Synapiina, pars --. SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea 20, No.277: 31 S., CURCULIO-Institute: Mönchengladbach. – HTML – https://www.curci.de/?beitrag=277

Abstract: In the framework of the 'Digital Weevil Determination' project a digital and interactive determination work for the tribes Piezotrachelini, Exapiini, Metapiini and Synapiina, pars (Apionidae part V) is presented for the first time as a pictorial key in both German and English. 49 species and subspecies of the West Palaearctic region "Transalpina" - the zoogeographical region north of the Alps, the Pyrenees and the Balkan mountains (the eastern delimitation is orientated approximately along the eastern borderlines of the EU members) [Fig.Transalpina] - were taken into account. Information in the key is depicted visually and it is also - more traditionally - 'translated' into text. Thus, we follow a basic principle of modern entomological and taxonomical work: to see by light-optical microscope exactly what the digital image is displaying on the screen. Information on distribution, host plants and data on the general biology complete this work. With 338 coloured photos, 80 plates and 47 maps, and with an epilogue at the end of the 'Digital Weevil Determination' project by Peter E. Stüben (Mönchengladbach) and Christoph Bayer (Berlin).

[214] Stüben, P.E. & Borges P.A.V. (2019): Die Curculionoidea (Coleoptera) von den Inseln der Azoren. - SNUDEBILLER: Studies on taxonomy, biology and ecology of Curculionoidea 20, No.279: 59 pp., CURCULIO-Institute: Mönchengladbach. – HTML –. https://www.curci.de/?beitrag=279

Abstract: The Curculionoidea (Coleoptera) of the Azores, with 775 photographs, 9 drawings, 57 plates and 66 distribution maps. Nine new records of weevils are presented for the nine islands of the Azores in addition to the 58 Curculionidea listed in [Listagem 2010]; Anthribidae, Scolytinae and Platypodinae are not considered in the current revision. Digital photos of habitus and aedeagus (dorsal/ lateral) are given by focus stacking for all listed 67 (sub-)species (scrollable, high resolution images (e.g. [Fig. PSEnod1MF])). A complete checklist of all findings (primarily resulting from two field trips of the first author in 2003 and 2018 and traps and other sampling methods performed by the co-author team) is compiled, and the distribution is mapped for all valid taxa. Finally, notes on each taxon are presented including taxonomical, ecological, distributional and other information. As in the eight catalogues before, the focus is on the molecular analysis, especially of the CO1 barcoding gene. Barcoding help to secure the status of each species and allow a still reliable systematic classification. For 38 species observations on biology and host plants are presented in large, scrollable images (e.g. [Fig. PSEsch] [Fig. HYPpal]). This illustrated list can be used for species determination and represents the first step towards the Internet catalogue “The Macaronesian Islands - an Encyclopedia of Curculionoidea (Coleoptera)" presented in the Internet journal 'Le Charançon' (CURCI) within the next years. Further records of weevils are highly desirable. The illustrated catalogue concludes with a call for cooperation to take an active part in the establishment, development and continuation of this Internet catalogue: <https://curci.de>. -A book project on the weevils of Makaronesia is in preparation by the first author for the beginning of 2021. -1. New synonyms / resynonymisation: *Neocnemis* Crotch, 1867 syn. nov. (= Strophosoma Billberg, 1820); *Pselactus spadix sulcipennis* Wollaston, 1854 syn. nov. (= *Pselactus spadix spadix* (Herbst, 1795) (Curculio); *Pseudophloeophagus variabilis* (Crotch, 1867) (*Phloeophagus*) resyn. from *Pseudophloeophagus tenax* (Wollaston, 1854) (*Rhyncolus*); *Pseudophloeophagus chopardi* Méquignon, 1942 syn.ov. (= *Pseudophloeophagus variabilis* (Crotch, 1867). 2. New combination: *Strophosoma (Neliocarus) occidentalis* (Crotch, 1867) comb. nov. from *Neocnemis* Crotch, 1867. 3. Designation of lectotype / paralectotypes: *Pseudophloeophagus variabilis* (Crotch, 1867) (*Phloeophagus*).

[215] Stüben, P.E. (2019/1 DIGITAL REPRINT): The Cryptorhynchinae of the Western Palearctic / Die Cryptorhynchinae der Westpaläarktis (Coleoptera: Curculionidae): Contents / Introduction /

Genera / *Acollocrates* / *Acalles*. - *SNUDEBILLER* **20**, No.281: 1-89 pp., CURCULIO-Institute: Mönchengladbach.
https://www.curci.de/?beitrag=281

[216] Stüben, P.E. (2019/2 DIGITAL REPRINT): The Cryptorhynchinae of the Western Palearctic / Die Cryptorhynchinae der Westpaläarktis (Coleoptera: Curculionidae): *Kyklioacalles* / *Dichromacalles* / *Onyxacalles* / *Elliptacalles*. - *SNUDEBILLER* **20**, No.282: 90- 203 pp., – HTML – CURCULIO-Institute: Mönchengladbach.
https://www.curci.de/?beitrag=282

[217] Stüben, P.E. (2019/3 DIGITAL REPRINT): The Cryptorhynchinae of the Western Palearctic / Die Cryptorhynchinae der Westpaläarktis (Coleoptera: Curculionidae): *Acallorneuma* / *Torneumatini* / *Echinodera*. - *SNUDEBILLER* **20**, No.283: 204 - 368 pp., CURCULIO-Institute: Mönchengladbach. – HTML –
https://www.curci.de/?beitrag=283

[218] Stüben, P.E. (2019/4 DIGITAL REPRINT): The Cryptorhynchinae of the Western Palearctic / Die Cryptorhynchinae der Westpaläarktis (Coleoptera: Curculionidae): *Calacalles* / *Canariaacalles* / *Pseudodichromacalles* / *Aeoniacalles* / *Sonchiacalles* / *Ficusacalles*. - *SNUDEBILLER* **20**, No.284: 369 - 436 pp., CURCULIO-Institute: Mönchengladbach. – HTML –
https://www.curci.de/?beitrag=284

[219] Stüben, P.E. (2019/5 DIGITAL REPRINT): The Cryptorhynchinae of the Western Palearctic / Die Cryptorhynchinae der Westpaläarktis (Coleoptera: Curculionidae): *Silvacalles* / *Dendroacalles* / *Madeiracalles* / Catalogue / References / Taxonomic Index. - *SNUDEBILLER* **20**, No.285: 437 - 519 pp., CURCULIO-Institute: Mönchengladbach. [In addition the complete work was published again on the annual SNUDEBILLER-DVD 19/20 at the end of 2019.] – HTML –
https://www.curci.de/?beitrag=285

[220] Stüben, P.E. (2019 / DIGITAL REPRINT): The Coleoptera of the Salvage Islands / Os Coleópteros das Ilhas Selvagens / Die Coleoptera von den Wilden Inseln, 2016, Curculio Institute: Mönchengladbach, 120 pp. ISBN 978-3-00-050438-9 - *SNUDEBILLER* **20**, No.286: 120pp., CURCULIO-Institute: Mönchengladbach. – PDF - . – HTML –
https://www.curci.de/?beitrag=286

[221] Stüben, P.E. & Kramp, K. (2019): Neue *Echinodera* aus Griechenland – Beitrag zur integrativen Taxonomie (Coleoptera: Curculionidae: Cryptorhynchinae) - *CONTRIBUTIONS TO ENTOMOLOGY : BEITRÄGE ZUR ENTOMOLOGIE* **69** (2): 319–330. – PDF –

[222] Stüben, P.E. (2019): Ausgestorbene Arten leben gelegentlich länger – zum Schicksal von *Neocnemis occidentalis* Crotch, 1867 (Coleoptera: Curculionidae) von den Azoren // Extinct species occasionally live longer
– on the fate of *Neocnemis occidentalis* Crotch, 1867 (Coleoptera: Curculionidae) from the Azores. - *Entomologie heute* **31:** 31-37. – PDF –

[223] Stüben, P. E. (2020): Editorial - Goodbye SNUDEBILLER – 20 years experimental field and journal combined – *SNUDEBILLER* **19/20**: 6pp. – PDF –

[224] Stüben, P.E., Sprick, P., Bayer, Ch. & Behne, L. (1. April 2019): 20 years of CURCULIO Institute – A short review into future. 20 Jahre CURCULIO-Institut - Ein kurzer Rückblick in die Zukunft. - *SNUDEBILLER* **20,** No. 278: 5 pp., CURCULIOInstitute: Germany, Mönchengladbach. – PDF –
https://www.curci.de/?beitrag=278

[225] Borges P.A.V., Melo C., Pereira C., Martins A.F., Vieira V., Wallon S., Cardoso P., Picanço A., Lamelas-López L., Amorim I.R., Serrano A.R.M., Nunes L., Duarte ´S., Soares A.O., Mendonça E., Stüben P.E., Borges I., Lissner J., Faasen T. (2019) : Guia Práticoda Fauna Terrestredos Açores / Field Guide of Azorean Terrestrial Fauna 469pp., Angra do Heroismo. -PDF-

2020

[226] Stüben, P.E. (2020, Ed.): Unchanged complete edition SNUDEBILLER 1/2000 – SNUDEBILLER 20/2019; ISSN 1439-4650; with ca. 20.000 figures, ca. 100 audio-visual media and ca. 6.100 text pages Reprint (HTML / PDF), CURCULIO-Institute, Germany: Mönchengladbach, ISSN 1439-4650, Delivery: **1. October 2020** (USB stick) 290,-€ (Reduced for members of the Curculio Institute). – PDF-

[227] Andrade, M.M. & Stüben P.E. (2020): New and interesting species of weevils (Coleoptera: Curculionoidea) from the Archipelago of Madeira – *Weevil News*, No. **84**: 12 pp. – PDF – https://curci.de/data/weevilnews/weevilnews_84.pdf

[**228. Sprick P. (2020):** Was haben Philosophen, Ethnologen und Entomologen gemeinsam? – Eine Laudatio für Peter E. Stüben – *Weevil News,* No. **85**: 7 pp. – PDF – https://curci.de/data/weevilnews/weevilnews_85.pdf

[229] Verdugo A., Stüben P.E., Torres J.L., Coello P. (2020): The relationship among the *Auletobius* species of the subgenus Canarauletes and the description of a new species (Attelabidae: Rhynchitinae). - *CONTRIBUTIONS TO ENTOMOLOGY : BEITRÄGE ZUR ENTOMOLOGIE,* **70** (1): 189–196. – PDF –

2021

[230] Stüben P.E. & Schütte A. (2021): An integrative taxonomic classification and description of two new Cryptorhynchinae from Northwest Africa (Coleoptera: Curculionidae). - *Revue suisse de Zoologie* (March 2021) **128**(1): 93-105. – PDF –

[231. Stüben P.E., Schütte A. & Astrin J.J. (1.7.2021): Barcoding and interspecific relationships of Macaronesian Weevils (Coleoptera: Curculionoidea). - *CONTRIBUTIONS TO ENTOMOLOGY : BEITRÄGE ZUR ENTOMOLOGIE,* **71** (1) 127–135. + Electronic Supplement published later: 2.12.2021**]**

[232] Stüben P.E. (2021): Zwei neue Cryptorhynchinae (Coleoptera: Curculionidae) aus der Mediterraneis – *Weevil News*, No. **95**: 14 pp. – PDF – https://curci.de/data/weevilnews/weevilnews_95.pdf

[233] Stüben, P. E., Schütte, A. & Astrin, J. J. (1.12.2021): Barcoding and interspecific relationships of Macaronesian Weevils (Coleoptera: Curculionoidea) – *Weevil News*, No. 94: 13 pp. – PDF – https://curci.de/data/weevilnews/weevilnews_94.pdf

2022

[234] Stüben P.E. (1.1. 2022): Weevils of Macaronesia. Canary Islands, Madeira, Azores (Coleoptera: Curculionoidea), Curculio Institute, Mönchengladbach, 784 pp. // ZooBank: urn:lsid:zoobank.org:pub:D69A0AB0-1303-4A1D-86A2-FD89DDA57E28

Abstract: An illustrated monograph on the 'Weevils of Lauri-Macaronesia', with **5148** photographs, mounted on **1268** plates, published in English on **784** pages. – PDF -
Focus-stacked photos of the habitus (dorsal / lateral) and the aedeagi (ventral / lateral) are given for all **733** sub/species; with notes on ecology, biology and molecular biology, taxonomy and phylogenetic systematics. The distribution of every species is visualised on maps, and many species are given interesting photos taken in their natural habitats. Introductory texts on higher taxa inform about the current state of research, and keys are presented to each family, subfamily or genus with numerous differential images to quickly and precisely identify the species. As part of the Integrative Taxonomy, the study present mtCO1 (658bp) barcodes for **468** Lauri-Macaronesian weevil species and subspecies in **1388** samples. A maximum likelihood consensus tree provides insights into the interspecific relationships of the respective genera without intending to provide deep phylogenetic insights above the genus level. In many cases, a comparison with the type material was made beforehand and the specimens we sequenced were prepared and deposited in a reference collection for later re-determinations. The sequences of the mtCO1 gene segment were deposited in GenBank by the author.
21 species and subspecies are new described: **Brentidae:** *Taeniapion maderense* **n. sp.** (Madeira); **Cossoninae:** *Barretonus picoanaferreira* **n. sp.** (Porto Santo), *Barretonus calhetaensis* **n. sp.** (Madeira), *Barretonus portomonizensis* **n. sp.** (Madeira), *Barretonus minor picojuliana* **n. ssp**. (Porto Santo), *Mesites nitidicollis* **n. sp.** (El Hierro / La Palma), *Pseudophloeophagus tenax borgesi* **n. ssp.** (Azores); **Cryptorhynchinae:** *Calacalles guanarteme* **n. sp.** (Gran Canaria), *Calacalles bandamaensis longisetus* **n. ssp.** (Gran Canaria), *Calacalles hermigua teselinde* **n. ssp.** (La Gomera), *Madeiracalles boaventurensis* **n.sp.** (Madeira), *Madeiracalles albostriatus* **n. sp.** (Madeira), *Silvacalles gomerensis* **n.sp.** (La Gomera), *Aeoniacalles holochrysus* **n. sp.** (La Gomera), *Canariacalles alluaudi foeniculus* **n. ssp.** (Tenerife / La Gomera), *Dendroacalles fortunatus garajonay* **n. ssp.** (La Gomera); **Curculioninae:** *Cionellus oleamaderensis* Stüben & Andrade **n. sp.** (Madeira), *Tychius atlanticus* **n. sp.** (Gran Canaria); **Cyclominae:** *Entomoderus oceanicus* **n. sp.** (Salvage Islands); **Entiminae**: *Coelositona*

garajonay **n. sp.** (La Gomera), *Coelositona garajonay grancanaria* **n. ssp.** (Gran Canaria); **Lixinae:** *Lixus purpurariensis* **n. sp.** (Fuerteventura / Lanzarote), *Larinus carlinaphilus* **n. sp.** (Gran Canaria) - The new Genus *Blechacalles* **n. gen.** is described from Madeira (type species: *Acalles xerampelinus* Woll., 1864.
New synonyms/resyn.: *Barretonus major* Folwaczny, 1972 **syn. nov.** (= *Barretonus desertae* Roudier, 1958, Cossoninae) / *Lindbergius curtus* Roudier, 1957 **resyn.** (Cossoninae, formerly *Pentatemnus arenarius* Woll., 1861), *Caulophilus sculpturatus* Wollaston, 1854 **resyn.** (Cossoninae, formerly C. oryzae (Gyllenhal, 1838)), *Pselactus laurineus* (Wollaston, 1861) **resyn.** (Cossoninae, formerly *Pselactus affinis* (Wollaston, 1861)), *Taeniapion diverserostratum* (Uyttenboogaart, 1935 **resyn.** (Apioninae, formerly *A. delicatulum* Wollaston, 1857), *Coelositona verrucosus* (Brullé, 1839) **resyn.** (Entiminae, formerly *C. latipennis* (Wollaston 1864), *Tychius colonnellii* Caldara, 1991 **resyn.** (Curculioninae, formerly *Tychius filirostris* Wollaston, 1854), *Sirocalodes lapalmaensis* (Voss 1965) **resyn.** (Ceutorhynchinae, formerly *Sirocalodes nigroterminatus* (Wollaston, 1854)). **Changes in rank:** *Mesites jubae* Uyttenboogaart, 1937 **stat. nov.** (*M. fusiformis jubae* upgraded to species status), *Pselactus variipennis* Folwaczny, 1971 **stat. nov.** (*P. caulium variipennis* upgraded to species status), *Caulotrupis desertagrandensis* Stüben 2018 **stat. nov.** (*Caulotrupis xerophilus desertagrandensis* upgraded to species status). **Designation of lectotype**: *Mesites fusiformis* Wollaston, 1861.
In the appendix of the book there is a digital data carrier (ZooVITA 3): 1. with all localities of each of the **733** Macaronesian species (type locality, localities with CO1 barcodes and further localities), 2. with species-specific, high-resolution photos for all species (focus stacking) that can additionally be used for species identification and 3. all publications of the author between 1.1.2018 and 31.12.2021 (continuation of the reprints on the data CD-ROM in: Peter E. Stüben (2018): "The Cryptorhynchinae of the Western Palearctic", Mönchengladbach (ZooVITA 2)).
This reference work, a synopsis after two decades of research on the Macaronesian Curculionoidea, enables scientists as well as collectors and newcomers to quickly identify species and navigate through the large number of species.
Key words. Insects, Coleoptera, Curculionoidea, Curculionidae, integrative taxonomy, morphology, molecular analyses, biology, ecology, host plants, endemism, faunistics, distribution, Spain, Portugal, Macaronesian Islands, Canary Islands, Salvage Islands, Madeira. **Porto Santo, Ilhas Desertas, Azores.**

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[235] Stüben P.E. (2022): Madeiras Rüsselkäfer – immer neue Überraschungen (Coleoptera: Curculionidae) – *Weevil News,* No. **101**: 20 pp.
https://curci.de/data/weevilnews/weevilnews_101.pdf

[236] Stüben P.E. (2022): Nach molekularem Zugriff: Eine neue Cleopus-Art (Coleoptera: Curculionidae) von Madeira – *Weevil News*, No. **104**: 9 pp
https://curci.de/data/weevilnews/weevilnews_104.pdf

2023

[237] Stüben P.E. & Schön K. (2023): Eine neue *Allomalia* (Brentidae: Nanophyinae) aus dem Osten der Türkei – *Weevil News*, No. **105**: 4 pp.
https://curci.de/data/weevilnews/weevilnews_105.pdf

[238] Stüben P.E. (2023): An illustrated weevil checklist of some collecting trips to Sardinia – *Weevil News*, No. **107**: 33 pp.
https://curci.de/data/weevilnews/weevilnews_107.pdf

[239] Krátký J., Stüben P. E. & Turner C. R. (2023): A new species of the genus Lixus (Coleoptera, Curculionidae) from Tenerife (Spain, Canary Islands) – *Weevil News,* No. **108**: 10 pp.
https://curci.de/data/weevilnews/weevilnews_108.pdf

[240] Stüben P.E. (2023): Bemerkenswerte Rüsselkäferfunde von Fuerteventura und Beschreibung zweier neuer Arten von den Purpurarien (Coleoptera: Curculionoidea, Curculionidae). - *Entomologische Zeitschrift, Schwanfeld,* 133 (2): 83 - 93. – PDF –

[241] Stüben, P.E. & Jacob, R. (1.10.2023 …): Weevils of Cyprus - an image catalogue. - *Le Charançon. Catalogues & Keys* (online) *No*. **6**, Curculio-Institute, Mönchengladbach, Germany. ISSN 1864-0699
https://cyprus.curci.de/

[242] Schütte A, Stüben PE, Astrin JJ (2023): Molecular Weevil Identification Project: A thoroughly curated barcode release of 1300 Western Palearctic weevil species (Coleoptera, Curculionoidea). - *Biodiversity Data Journal* **11**: e96438.
https://doi.org/10.3897/BDJ.11.e96438

[243] Stüben P.E. (2023): Schlüssel der westpaläarktischen Nanophyini (Coleoptera: Curculionoidea: Nanophyinae) – *Weevil News*, No. **111**: 23 pp
https://curci.de/data/weevilnews/weevilnews_111.pdf

2024

[244] Stüben, P.E. & Schön, J. (1.1.2024 …): Nanophyinae of the Western Palearctic - **Part 1:** Image key to the Corimaliini. - *Le Charançon. Catalogues & Keys No.* **7**, Curculio-Institute, Mönchengladbach, Germany. ISSN 1864-0699
https://nanophyinae.curci.de/

[245] Stüben, P.E. (2.3.2024 …): Nanophyinae of the Western Palearctic - **Part 2** (extension): Image key to the Nanophyini. - *Le Charançon. Catalogues & Keys No.* **7**, Curculio-Institute, Mönchengladbach, Germany. ISSN 1864-0699
https://nanophyinae.curci.de/

[246] Stüben P.E. (2024a): New species of *Kyklioacalles* Stüben, 1999 from Majorca (Curculionidae: Cryptorhynchinae) and a first attempt to expand the integrative taxonomy to include the 3D scanning – *Weevil News*, No. **112**: 7 pp. – PDF –
https://curci.de/data/weevilnews/weevilnews_112.pdf

[247] Stüben P.E., Clarke J.J.R., Anderson R. & Rosell S. (2024): *Xenosacalles* gen.n. *irlandikos* sp.n. (Coleoptera: Curculionidae: Cryptorhynchinae) – Cuias es? – *Weevil News*, No. **113**: 13 pp. – PDF –
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[249]

2. Descriptions of taxa by the author (Jan. 1998- Jan. 2023)

(The yellow leading digits correspond to those of the bibliography (see above) and in: Stüben, P.E.: Publications 1994-2017, in: ZooVITA 2: Studies on taxonomy, biology and ecology, Mönchengladbach (Germany), 1.1.2018, ISSN 1867-5921).

A. Cryptorhynchinae of the Western Palaearctic region

Genus: *Acalles* Schoenherr, 1825

[96] ***Acalles alcarazensis*** **Stüben 2009; Stüben, P.E. (2009) - Distribution: Spain**
[31] ***Acalles almeriaensis*** **Stüben 2001; Stüben, P.E. (2001) - Distribution: Spain**
[42] ***Acalles asniensis*** **Stüben 2003; Stüben, P. E. (2003) - Distribution: Morocco**
[87] ***Acalles biokovoensis*** **Stüben 2008; Stüben, P.E. (2008) - Distribution: Croatia**
[52] ***Acalles cazorlaensis*** **Stüben 2004; Stüben, P. E. (2004) - Distribution: Spain**
[52] ***Acalles cytisi*** **Stüben 2004; Stüben, P. E. (2004) - Distribution: Spain**
[31] ***Acalles gadorensis*** **Stüben 2001; Stüben, P.E. (2001)- Distribution: Spain**
[168] ***Acalles (Origoacalles) granulimaculosus*** **Stüben 2015; Schütte, A. & Stüben, P.E. (2015) - Distribution: Canary Islands (La Gomera)**
[52] ***Acalles guadarramaensis*** **Stüben 2004; Stüben, P. E. (2004) - Distribution: Spain**
[168] ***Acalles iblanensis*** **Stüben 2015; Schütte, A. & Stüben, P.E. (2015) - Distribution: Morocco**
[42] ***Acalles lemur cisalpinus*** **Stüben 2003; Stüben, P. E. (2003) - Distribution: Italy**
[31] ***Acalles maraoensis*** **Stüben 2001; Stüben, P.E. (2001) - Distribution: Portugal/Spain**
[52] ***Acalles monasterialis*** **Stüben 2004; Stüben, P. E. (2004) - Distribution: Spain**
[210] ***Acalles ossetiensis*** **Stüben 2018; Stüben, P. E. (2018) - Distribution: Caucasus**
[37] ***Acalles parasierrae*** **Stüben 2002; Stüben, P.E. (2002) - Distribution: Morocco**
[230] ***Acalles romani*** **Stüben, 2021: Stüben, P.E. & Schütte, A. (2021) - Distribution: Morocco**
[31] ***Acalles sardiniaensis*** **Stüben 2001; Stüben, P.E. (2001) - Distribution: Italy**
[13] ***Acalles sintraniensis*** **Stüben 1999; Stüben P.E. (1999) - Distribution: Portugal**
[42] ***Acalles sarothamni*** **Stüben 2003; Stüben, P. E. (2003) - Distribution: Spain**
[42] ***Acalles testensis*** **Stüben 2003; Stüben, P. E. (2003) - Distribution: Morocco**
[168] ***Acalles vorsti*** **Stüben 2015; Schütte, A. & Stüben, P.E. (2015) - Distribution: Spain (Mallorca)**

Genus: *Acallorneuma* Mainardi, 1906

[66] ***Acallorneuma ibericum*** **Stüben 2005; Stüben, P.E. (in: Stüben et. al. 2005) - Distribution: Spain**

[113] Genus: *Aeoniacalles* Stüben & Astrin, 2010

[18] ***Acalles aeonii bodegensis*** **(Stüben 2000) Stüben, P.E. (2000) - Distribution: Canary Islands**
[18] ***Aeoniacalles aeonisimilis*** **(Stüben 2000); Stüben, P.E. (2000) - Distribution: Canary Islands**
[18] ***Aeoniacalles grancanariensis*** **(Stüben 2000); Stüben, P.E. (2000) - Distribution: Canary Islands**
[234] ***Aeoniacalles holochrysus*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: La Gomera**
[128] ***Aeoniacalles tabladoensis*** **Stüben & Astrin 2011 Stüben, P.E. & Astrin, J.J (2011) - Distribution: Canary Islands**

[234] Genus: *Blechacalles* Stüben, 2022

(type species: *Acalles xerampelinus* Woll., 1864)

Genus: *Calacalles* Peyerimhoff, 1925

[103] Subgenus: *Nanoacalles* Astrin & Stüben, 2009

[111] ***Calacalles agana*** **Stüben 2010; Stüben (2010) - Distribution: Canary Islands**
[135] ***Calacalles bandamaensis*** **Stüben 2012; Stüben, P.E. (2012) - Distribution: Canary Islands**
[234] ***Calacalles bandamaensis longisetus*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: Gran Canaria**
[178] ***Calacalles citvorator*** **Stüben 2015; Stüben (2015) - Distribution: Canary Islands**
[234] ***Calacalles guanarteme*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: Gran Canaria**
[103] ***Calacalles hermigua*** **Stüben & Astrin 2009; Astrin & Stüben (2009) - Distribution: Canary Islands**
[234] ***Calacalles hermigua teselinde*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: La Gomera**
[151] ***Calacalles lepensis*** **Stüben 2013; Stüben (2013) - Distribution: Canary Islands**

[210] ***Calacalles manriquei*** **Stüben 2018; Stüben (2018) - Distribution: Canary Islands**
[178] ***Calacalles montelunatus*** **Stüben 2015; Stüben (2015) - Distribution: Canary Islands**
[110] ***Calacalles mulagua*** **Stüben 2010; Stüben (2010) - Distribution: Canary Islands**
[103] ***Calacalles nataliae*** **Astrin & Stüben 2009; Astrin & Stüben (2009) - Distribution: Canary Islands**
[53] Subgenus: *Crateracalles* Stüben, 2004
[53] ***Calcalles* (*Crateracalles*) *droueti azoricus*** **Stüben 2004; Stüben P.E. (2004d) - Distribution: Azores**

[232] Genus: *Campylonotum* Stüben, 2021

[232] ***Campylonotum cypricum*** **Stüben 2021; Stüben, P.E. (2021) - Distribution: Cyprus**

[113] Genus: *Canariacalles* Stüben & Astrin, 2010

[234] ***Canariacalles alluaudi foeniculus*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: Canary Islands**
[18] ***Canariacalles lanzarotensis*** **(Stüben 2000); Stüben, P.E. (2000e) - Distribution: Canary Islands**

Genus: *Dichromacalles* Stüben, 1998

Subgenus: *Dichromacalles* s. str.
[145] ***Dichromacalles algecirasensis*** **Stüben 2013; Stüben P.E. & A. Schütte (2013) - Distribution: Spain**
[161] ***Dichromacalles andalusiensis*** **Stüben 2014; Stüben P.E. (2014) - Distribution: Spain**
[5] Subgenus: *Balcanacalles* Stüben & Behne, 1998
[5] ***Dichromacalles boroveci*** **Stüben 1998; Stüben P.E. & L. Behne (1998) - Distribution: Greece: Rhodos**
[5] ***Dichromacalles nitens*** **Stüben 1998; Stüben P.E. & L. Behne (1998) - Distribution: Turkey**

[67] Genus: *Dendroacalles* Stüben, 2005

[234] ***Dendroacalles fortunatus garajonay*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: La Gomera**
[67] Subgenus: *Euphorbioacalles* Stüben, 2005
[18] ***Dendroacalles poneli*** **(Stüben 2000); Stüben, P.E. (2000) - Distribution: Canary Islands (formerly *Acalles*)**
[18] ***Dendroacalles euphorbiacus*** **(Stüben 2000); Stüben, P.E. (2000) - Distribution: Canary Islands (formerly *Acalles*)**

[89] Genus: *Echinoacalles* Stüben, 2008

[89] ***Echinoacalles franzi*** **Stüben 2008; Stüben P.E. (2008) - Distribution: Canary Islands**

Genus: *Echinodera* Wollaston, 1863

Subgenus: Echinodera s.str.
[30] ***Echinodera atlasensis*** **Stüben 2001; Stüben, P.E. (2001) - Distribution: Morocco**
[19] ***Echinodera benahoarita*** **Stüben 2000; Stüben, P.E. (2000) - Distribution: Canary Islands**
[30] ***Echinodera casablancaensis*** **Stüben 2001; Stüben, P.E. (2001) - Distribution: Morocco**
[67] ***Echinodera guacimara*** **Stüben & Germann 2005; Stüben & Germann (2005) - Distribution: Canary Islands**
[210] ***Echinodera jandiaensis*** **Stüben 2018; Stüben (2018) - Distribution: Canary Islands**
[210] ***Echinodera kratkyi*** **Stüben 2018; Stüben (2018) - Distribution: Canary Islands**
[121] ***Echinodera montana*** **Stüben & Astrin 2011; Astrin, J.J. & Stüben, P.E. (2011) - Distribution: Canary Islands**
[19] ***Echinodera palmaensis*** **Stüben 2000; Stüben, P.E. (2000) - Distribution: Canary Islands**
[19] ***Echinodera pseudohystrix*** **Stüben 2000; Stüben, P.E. (2000) - Distribution: Canary Islands**
[19] ***Echinodera tenoensis*** **Stüben 2000; Stüben, P.E. (2000) - Distribution: Canary Islands**

Subgenus: Ruteria Roudier, 1954.

[37] *Echinodera berkanensis* Stüben 2002; Stüben, P.E. (2002a) - Distribution: Morocco
[72] *Echinodera cognita* Stüben 2006; Stüben P.E. (2006) - Distribution: Spain
[108] *Echinodera cyprica* Stüben 2010; Stüben, P.E. (2010) - Distribution: Cyprus
[210] *Echinodera hetthei* Stüben 2018; Stüben, P.E. (2018) - Distribution: Turkey
[164] *Echinodera lusitanica* Stüben 2014, Stüben, P.E. (2014) - Distribution: Spain

Subgenera: *Echinodera* s.l. (insertae sedis)
(Formerly - Subgenera: *Echinodera* s.str. & *Dieckmannia* Stüben 1998; Stüben P.E. (1998c))

[87] *Echinodera adriatica* Stüben 2008; Stüben, P.E. (2008) - Distribution: Croatia
[42] *Echinodera andalusiensis* Stüben 2003; Stüben, P. E. (2003) - Distribution: Spain
[221] *Echinodera arcadia* Stüben 2019; Stüben, P.E. & Kramp, K. (2019) - Distribution: Greece
[87] *Echinodera aspromontensis* Stüben 2008; Stüben, P.E. (2008) - Distribution: Italy
[121] *Echinodera bargouensis* Stüben & Astrin 2011; Astrin, J.J. & Stüben, P.E. (2011) - Distribution: Tunisia
[12] *Echinodera bayeri* Stüben 1999; Stüben P.E. (1999) - Distribution: Turkey
[7] *Echinodera behnei* Stüben 1998; Stüben P.E. (1998) - Distribution: Greece, Bulgaria
[221] *Echinodera brachati peloponnensis* Stüben 2019; Stüben, P.E. & Kramp, K. (2019) - Distribution: Greece
[7] *Echinodera brisouti peneckei* Stüben 1998; Stüben P.E. (1998) - Distribution: Croatia
[87] *Echinodera bulbosa* Stüben 2008 & Astrin; Stüben, P.E. (2008) - Distribution: Spain
[54] *Echinodera capbonensis* Stüben 2004; Stüben, P. E. (2004) - Distribution: Tunisia
[106] *Echinodera capbonensis diottii* Stüben 2010; Stüben, P. E. (2010) - Distribution: Italy
[37] *Echinodera ceutaensis* Stüben 2002; Stüben, P.E. (2002) - Distribution: Morocco
[87] *Echinodera corcyrensis* Stüben 2008; Stüben, P.E. (2008) - Distribution: Croatia, Greece
[42] *Echinodera germanni* Stüben 2003; Stüben, P. E. (2003) - Distribution: Morocco
[210] *Echinodera hoceimaensis* Stüben 2018; Stüben (2018) - Distribution: Morocco
[42] *Echinodera ibleiensis* Stüben 2003; Stüben, P. E. (2003) - Distribution: Italy
[37] *Echinodera ifranensis* Stüben 2002; Stüben, P.E. (2002) - Distribution: Morocco
[7] *Echinodera ingowolfi* Stüben 1998; Stüben P.E. (1998)- Distribution: Greece
[54] *Echinodera kesraensis* Stüben 2004; Stüben, P. E. (2004) - Distribution: Tunisia
[37] *Echinodera ketamaensis* Stüben 2002; Stüben, P.E. (2002) - Distribution: Morocco
[38] *Echinodera kostenbaderi* Stüben 2002; Stüben, P.E. & Wolf, I (2002) - Distribution: Italy
[54] *Echinodera kroumiriensis* Stüben 2004; Stüben, P. E. (2004) - Distribution: Tunisia
[221] *Echinodera magnesia* Stüben 2019; Stüben, P.E. & Kramp, K. (2019) - Distribution: Greece
[210] *Echinodera maltensis* Stüben 2018; Stüben P.E. (2018) - Distribution: Malta
[42] *Echinodera nebrodiensis* Stüben 2003; Stüben, P. E. (2003) - Distribution: Italy
[96] *Echinodera nuraghia* Stüben 2009; Stüben, P.E. (2009) - Distribution: Italy
[230] *Echinodera philippei* Stüben, 2021: Stüben, P.E. & Schütte, A. (2021) - Distribution: Algeria
[7] *Echinodera pseudovariegata* Stüben 1998; Stüben P.E. (1998) - Distribution: Greece (Crete), Turkey
[30] *Echinodera rifensis* Stüben 2001; Stüben, P.E. (2001) - Distribution: Morocco
[7] *Echinodera romanboroveci* Stüben 1998; Stüben P.E. (1998) - Distribution: Montenegro
[7] *Echinodera roudieri* Stüben 1998; Stüben P.E. (1998) - Distribution: Spain
[54] *Echinodera setosagracilis* Stüben 2004; Stüben, P. E. (2004) - Distribution: Tunisia
[66] *Echinodera settefratelliensis* Stüben 2005; Stüben, P.E. (in: Stüben et. al. 2005) - Distribution: Italy
[42] *Echinodera siciliensis* Stüben 2003; Stüben, P. E. (2003) - Distribution: Italy
[72] *Echinodera spinosa* Stüben 2006; Stüben P.E. (2006c) - Distribution: Spain
[30] *Echinodera suber* Stüben 2001; Stüben, P.E. (2001) - Distribution: Morocco
[37] *Echinodera tazzakaensis* Stüben 2002; Stüben, P.E. (2002) - Distribution: Morocco
[37] *Echinodera tellatlasensis* Stüben 2002; Stüben, P.E. (2002) - Distribution: Morocco
[210] *Echinodera varroi* Stüben 2018; Stüben (2018) - Distribution: Italy

[72] *Echinodera vitoensis* Stüben 2006; Stüben P.E. (2006) - Distribution: Italy
[54] *Echinodera zaghouanensis* Stüben 2004; Stüben, P. E. (2004) - Distribution: Tunisia

[113] Genus: *Echiumacalles* Stüben & Astrin, 2010

[18] *Echiumacalles anagaensis* (Stüben 2000); Stüben, P.E. (2000) - Distribution: Canary Islands

[93] Genus: *Elliptacalles* Astrin & Stüben, 2008

[87] *Elliptacalles baeticus* Stüben 2008; Stüben, P.E. (2008) - Distribution: Spain

[113] Genus: *Ficusacalles* Stüben & Astrin, 2010

[36] *Ficusacalles oceanicus* (Stüben 2002); Stüben, P.E. (2002) - Distribution: Selvagens Islands
[82] *Ficusacalles ficvorator* (Stüben 2007); Stüben, P.E. (2007) - Distribution: Canary Islands

[10] Genus: *Kyklioacalles* Stüben, 1999

Subgenus: *Kyklioacalles* s.str.

[126] *Kyklioacalles alcornocalensis* Stüben, Torres & Astrin 201; Stüben, P.E., Torres J.L. & Astrin, JJ. (2004) - Distribution: Spain
[51] *Kyklioacalles almadophilus* Stüben 2004; Stüben, P.E. (2004) - Distribution: Spain
[51] *Kyklioacalles anthyllis* Stüben 2004; Stüben, P.E. (2004) - Distribution: Spain
[43] *Kyklioacalles astragali* Stüben 2003; Stüben, P. E. (2003) - Distribution: Spain
[114] *Kyklioacalles atlasicus* Stüben & Astrin 2010; Stüben. P.E. & Astrin J.J. (2010) - Distribution: Morocco
[114] *Kyklioacalles bupleuri* Stüben 2004; Stüben, P.E. (2004) - Distribution: Tunisia
[66] *Kyklioacalles characivorus* Stüben 2005; Stüben, P.E. (Stüben et. al. 2005) - Distribution: Italy
[43] *Kyklioacalles euphorbiophilus* Stüben 2003; Stüben, P. E. (2003) - Distribution: Morocco
[133] *Kyklioacalles flavomaculatus* Stüben 2012; Stüben, P.E. (2012) - Distribution: Morocco
[134] *Kyklioacalles igualeja* Stüben 2012; Stüben, P.E. (2012) - Distribution: Spain
[246] *Kyklioacalles majoricensis* Stüben 2024; Stüben, P. E. (2024) – Spain: Majorca
[31] *Kyklioacalles maroccensis* (Stüben 2001); Stüben, P.E. (2001) - Distribution: Morocco (formerly *Acalles*)
[104] *Kyklioacalles oukaimedensis* Stüben 2010; Stüben, P.E. (2010) - Distribution: Morocco
[114] *Kyklioacalles plantapilosus* Stüben & Astrin 2010; Stüben. P.E. & Astrin J.J. (2010) - Distribution: Spain
[51] *Kyklioacalles pseudobarbarus* Stüben 2004; Stüben, P.E. (2004) - Distribution: Algeria
[43] *Kyklioacalles reginae* Stüben 2003; Stüben, P. E. (2003) - Distribution: Spain
[37] *Kyklioacalles snassensis* Stüben 2002; Stüben, P.E. (2002) - Distribution: Morocco
[37] *Kyklioacalles tidiquinensis* Stüben 2002; Stüben, P.E. (2002) - Distribution: Morocco
[43] *Kyklioacalles yestensis* Stüben 2003; Stüben, P. E. (2003a - Distribution: Spain

[114] Subgenus: *Glaberacalles* Stüben & Astrin 2010

[70] *Kyklioacalles armeniacus* Stüben 2006; Stüben, P.E. (2006) - Distribution: Turkey
[66] *Kyklioacalles berberi* (Stüben 2005); Stüben, P.E. (Stüben et. al. 2005) - Distribution: Morocco
[43] *Kyklioacalles erinaceus* Stüben 2003; Stüben, P. E. (2003) - Distribution: Spain
[210] *Kyklioacalles oblongus* Stüben 2018; Stüben, P. E. (2018) - Distribution: Spain

[43] Subgenus: *Palaeoacalles* Stüben 2003

[66] *Kyklioacalles velebitensis* Stüben 2005; Stüben, P.E. (Stüben et. al. 2005) - Distribution: Croatia

[113] Genus: *Madeiracalles* Stüben & Astrin, 2010

[36] *Madeiracalles achadagrandensis* (Stüben, 2002); Stüben, P.E. (2002) - Distribution: Madeira
[234] *Madeiracalles albostriatus* Stüben 2022; Stüben, P.E. (2022) - Distribution: Madeira
[210] *Madeiracalles beelzebubi* Stüben, 2018); Stüben, P.E. (2018) - Distribution: Madeira

[234] ***Madeiracalles boaventurensis*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: Madeira**
[235] ***Madeiracalles helichrysus*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: Madeira**
[235] ***Madeiracalles jacobi*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: Madeira**
[72] ***Madeiracalles machadoi*** **(Stüben 2006); Stüben P.E. (2006) - Distribution: Madeira**
[36] ***Madeiracalles portosantoensis*** **(Stüben, 2002); Stüben, P.E. (2002) - Distribution: Madeira: Porto Santo**
[36] ***Madeiracalles terminalis tolpis*** **(Stüben, 2002); Stüben, P.E. (2002) - Distribution: Madeira**
[36] ***Madeiracalles tristaensis*** **(Stüben, 2002); Stüben, P.E. (2002) - Distribution: Madeira**
[210] ***Madeiracalles succulentus*** **Stüben, 2018; Stüben, P.E. (2018) - Distribution: Madeira**

[93] Genus: *Montanacalles* Astrin & Stüben, 2008

[32] ***Montanacalles nevadaensis*** **(Stüben 2001); Stüben, P.E. (2001) - Distribution: Spain (formerly *Kyklioacalles*)**

[11] Genus: *Onyxacalles* Stüben, 1999

Subgenus: Onyxacalles s.str.

[63] ***Onyxacalles balearicus*** **Stüben 2005; Stüben, P.E. (2005) - Distribution: Spain**
[34] ***Onyxacalles bermejaensis*** **Stüben 2001; Stüben, P.E. & Wolf, I. (2001) - Distribution: Spain**
[232] ***Onyxacalles brusteli*** **Stüben 2021; Stüben, P.E. (2021) - Distribution: Morocco**
[210] ***Onyxacalles georgius*** **Stüben & Kratky 2018; Stüben, P.E. (2018) - Distribution: Caucasus**
[37] ***Onyxacalles gibraltarensis*** **Stüben 2002; Stüben, P.E. (2002) - Distribution: Morocco**
[59] ***Onyxacalles maginaensis*** **Stüben 2004; Stüben, P.E. (2004) in: Germann, Ch. & P. E. Stüben (2004) - Distribution: Spain**
[96] ***Onyxacalles nuraghi*** **Stüben 2012; Stüben, P. E. & Astrin, J.J. (2012) - Distribution: Italy: Sardinias**
[42] ***Onyxacalles seguraensis*** **Stüben 2003; Stüben, P. E. (2003) - Distribution: Spain**
[138] ***Onyxacalles torre*** **Stüben & Astrin 2012; Stüben, P. E. & Astrin, J.J. (2012) - Distribution: France (Corsica)**
[138] ***Onyxacalles vilae*** **Stüben 2012; Stüben, P. E. & Astrin, J.J. (2012) - Distribution: Croatia - France**

Genus: *Pseudodichromacalles* Stüben & Astrin, 2010

[210] ***Pseudodichromacalles pericallis*** **Stüben 2018; Stüben, P.E. (2018) - Distribution: Canary Islands**

[113] Genus: *Silvacalles* Stüben & Astrin, 2010

Subgenus: *Silvacalles* s.str.

[158] ***Silvacalles carlinavorus*** **Stüben & Schütte 2014; Stüben, P.E. & Schütte, A. (2014) - Distribution: Canary Islands**
[234] ***Silvacalles gomerensis*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: La Gomera**
[210] ***Silvacalles spinosus*** **Stüben 2018; Stüben, P.E. (2018) - Distribution: Canary Islands**

[113] Subgenus: *Tagasastacalles* Stüben & Astrin 2010

[18] ***Silvacalles hakani tagasaste*** **(Stüben 2000); Stüben, P.E. (2000) - Distribution: Canary Islands**
[18] ***Silvacalles pedestris*** **(Stüben 2000); Stüben, P.E. (2000) - Distribution: Canary Islands**

[113] Subgenus: *Tolpiacalles* Stüben & Astrin 2010

[77] ***Silvacalles tolpivorus*** **(Germann & Stüben 2006); Germann Ch. & P.E. Stüben (2006) - Distribution: Canary Islands**

[113] Genus: *Sonchiacalles* Stüben & Astrin, 2010

[18] ***Sonchiacalles silosensis*** **(Stüben 2000); Stüben, P.E. (2000) - Distribution: Canary Islands**
[18] ***Sonchiacalles sonchi*** **(Stüben 2000); Stüben, P.E. (2000) - Distribution: Canary Islands**
[18] ***Sonchiacalles muelleri*** **(Stüben 2000); Stüben, P.E. (2000) - Distribution: Canary Islands**

Genus: *Torneuma* Bedel, 1884

Subgenus: *Paratorneuma* Roudier, 1956

[77] ***Torneuma* (*Paratorneuma*) *aphroditae*** **(Germann & Stüben 2006); Germann Ch. & P.E. Stüben (2006) - Distribution: Canary Islands (formerly *Paratorneuma*)**

[81] ***Torneuma* (*Paratorneuma*) *feloi*** **(Stüben 2007); Stüben, P.E. (2007) - Distribution: Canary Islands**

[210] ***Torneuma* (*Paratorneuma*) *alexi*** **(Stüben 2018); Stüben, P.E. (2007) - Distribution: Canary Islands**

Subgenus: *Paratyphloporus* Solari, 1937

[81] ***Torneuma* (*Paratyphloporus*) *ericeensis*** **(Stüben 2007); Stüben, P.E. (2007) - Distribution: Italy**

Subgenus: Torneuma s.str.

[190] ***Torneuma* (s.str.) *isambertoi*** **Stüben 2016; Stüben, P.E., Schütte, A., López, H., Astrin, J. (2016) - Distribution: Madeira**

[172] ***Torneuma* (s.str.) *korwitzi*** **Stüben & Schütte 2015; Stüben, P.E. & Schütte, A. (2015) - Distribution: Madeira**

[36] ***Torneuma* (s.str.) *maderense*** **Stüben 2002; Stüben, P.E. (2002) - Distribution: Madeira**

[36] ***Torneuma* (s.str.) *picocasteloense*** **Stüben 2002; Stüben, P.E. (2002) - Distribution: Madeira: Porto Santo**

Subgenus: *Typhloporus* Hampe, 1864

[81] ***Torneuma* (*Typhloporus*) *abbazzii*** **Stüben 2007; Stüben, P.E. (2007) - Distribution: Italy**

[81] ***Torneuma* (*Typhloporus*) *teuladense*** **Stüben 2007; Stüben, P.E. (2007) - Distribution: Italy**

Torneuma s.l. (incertae sedis)

[81] ***Torneuma baeticum*** **Stüben 2007; Stüben, P.E. (2007) - Distribution: Spain**

[112] ***Torneuma bensusani*** **Stüben 2010; Stüben, P.E. (2010) - Distribution: Spain**

[190] ***Torneuma cadizensis*** **Stüben 2016; Stüben, P.E., Schütte, A., López, H., Astrin, J. (2016) - Distribution: Spain**

[81] ***Torneuma curtulum vastum*** **Stüben 2007; Stüben, P.E. (2007) - Distribution: Italy**

[81] ***Torneuma ficuzzense*** **Stüben 2007; Stüben, P.E. (2007) - Distribution: Italy**

[81] ***Torneuma grouvellei liguricum*** **Stüben 2007; Stüben, P.E. (2007) - Distribution: Italy**

[87] ***Torneuma alhaurinense*** **Stüben 2008; Stüben, P.E. (2008) - Distribution: Spain**

[87] ***Torneuma istanense*** **Stüben 2008; Stüben, P.E. (2008) - Distribution: Spain**

[96] ***Torneuma mesegueri lineaensis*** **Stüben 2009; Stüben, P.E. (2009) - Distribution: Spain**

[81] ***Torneuma serpentinum*** **Stüben 2007; Stüben, P.E. (2007a) - Distribution: Portugal**

[87] ***Torneuma stanviti*** **Stüben 2008; Stüben, P.E. (2008) - Distribution: Spain**

[96] ***Torneuma torresi*** **Stüben 2009; Stüben, P.E. (2009) - Distribution: Spain**

[96] ***Torneuma troglodytis*** **Stüben 2009; Stüben, P.E. (2009) - Distribution: Morocco**

[247] Genus: *Xenosacalles* Stüben, 2024

[247] ***Xenosacalles irlandikos*** **Stüben, Clarke & Anderson, 2024; Stüben et al. (2024) – Distribution: Northern Irlande, England, Australia, Tasmania**

B. Cryptorhynchinae of the Eastern Palearctic region

[9] ***Echinodera schawalleri*** **Stüben 1998; Stüben P.E. (1998) - Distribution: Kyrgyzstan**

C. Descriptions of other Curculionoidea from Macaronesia

[179] ***Auletobius (Canarauletes) garajonay*** **Stüben 2015; Stüben, P.E. (2015) - Distribution: Canary Islands**

[109] ***Bagous monanthiphagus*** **Stüben 2010; Stüben, P.E. (2010) - Distribution: Canary Islands**

[234] ***Barretonus calhetaensis*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: Madeira**

[234] ***Barretonus minor picojuliana*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: Porto Santo**

[234] ***Barretonus picoanaferreira*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: Porto Santo**

[234] ***Barretonus portomonizensis*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: Madeira**
[209] ***Caulotrupis ficvorator ficvorator*** **Stüben 2018; Stüben, P.E. (2018f) - Distribution: Madeira**
[209] ***Caulotrupis ficvorator isambertoi*** **Stüben 2018; Stüben, P.E. (2018f) - Distribution: Deserta Grande**
[209] ***Caulotrupis lourencoensis*** **Stüben 2018; Stüben, P.E. (2018f) - Distribution: Madeira: Ponta de São Lourenço**
[209] ***Caulotrupis lucifugus faialensis*** **Stüben 2018; Stüben, P.E. (2018f) - Distribution: Madeira**
[209] ***Caulotrupis portosantoensis*** **Stüben 2018; Stüben, P.E. (2018f) - Distribution: Porto Santo**
[209] ***Caulotrupis wollastoni*** **Stüben 2018; Stüben, P.E. (2018f) - Distribution: Deserta Grande**
[209] ***Caulotrupis xerophilus*** **Stüben 2018; Stüben, P.E. (2018f) - Distribution: Porto Santo**
[209] ***Caulotrupis [xerophilus] desertagrandensis*** **Stüben 2018; Stüben, P.E. (2018f) - Distribution: Deserta Grande**
[187] ***Ceutorhynchus descurainiae*** **Stüben 2016; Stüben, P.E. (2016) - Distribution: Canary Islands**
[234] ***Cionellus oleamaderensis*** **Stüben & Andrade 2022; Stüben, P.E. (2022) - Distribution: Madeira**
[236] ***Cleopus maderensis*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: Madeira**
[234] ***Coelositona garajonay*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: La Gomera**
[234] ***Coelositona garajonay grancanaria*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: Gran Canaria**
[226] ***Cyphocleonus aguiari*** **Stüben & Andrade 2020; Stüben, P.E., Schütte, A. & Andrade, M. (2020) - Distribution: Madeira**
[226] ***Cyphocleonus garajonay*** **Stüben 2020; Stüben, P.E., Schütte, A. & Andrade, M. (2020) - Distribution: Canary Islands (La Gomera)**
[234] ***Entomoderus oceanicus*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: Salvage Islands**
[240] ***Entomoderus lanzarotensis*** **Stüben 2023; Stüben, P.E. (2023) - Distribution: Lanzarote**
[115] ***Hemitrichapion wagneri gomerense*** **Stüben & Behne 2010; Stüben, P.E. & Behne, L. (2010) - Distribution: Canary Islands**
[181] ***Hesperorrhynchus glutinosus*** **Stüben 2016; Stüben, P.E. (2016) - Distribution: Madeira**
[234] ***Larinus carlinaphilus*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: Gran Canaria**
[146] ***Lixus* (*Compsolixus*) *erysimi*** **Stüben & Behne 2013; Stüben, P.E. & Behne, L. (2013) - Distribution: Canary Islands**
[239] ***Lixus machadoi*** **Krátký, Stüben & Turner 2023*; Krátký, Stüben & Turner (2023) - Distribution: Canary Islands (Tenerife)**
[234] ***Lixus purpurariensis*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: Canary Islands**
[234] ***Mesites nitidicollis*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: Canary Islands**
[207] ***Pseudocaulotrupis*** **gen. nov. *floresensis*** **Stüben 2018; Stüben, P.E. (2018d) - Distribution: Azores**
[207] ***Pseudocaulotrupis*** **gen. nov. *schuetteri*** **Stüben 2018; Stüben, P.E. (2018d) - Distribution: Azores**
[234] ***Pseudophloeophagus tenax borgesi*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: Azores**
[234] ***Taeniapion maderense*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: Madeira**
[165] ***Thamiocolus garajonay*** **Stüben 2014; Stüben, P.E. & Schütte, A. (2014) - Distribution: Canary Islands**
[165] ***Thamiocolus grancanariensis*** **Stüben & Schütte 2014; Stüben, P.E. & Schütte, A. (2014b) - Distribution: Canary Islands**
[234] ***Tychius atlanticus*** **Stüben 2022; Stüben, P.E. (2022) - Distribution: Gran Canaria**
[240] ***Styphloderes maxorata*** **Stüben 2023; Stüben, P.E. (2023) - Distribution: Fuerteventura**

D. Descriptions of other Curculionoidea from the Western Palearctic region (without Macaronesia)

[237] ***Allomalia armeniaca*** **Stüben & Schön 2023; Stüben, P.E. & Schön, K. (2023) –**

Distribution:Turkey

[229] ***Auletobius gaditanus*** **Verdugo, Stüben, Torres, Coello 2020; Verdugo A., Stüben P.E., Torres J.L. & Coello P. (2020) - Distribution: Spain**

E. Descriptions of other Coleoptera

[185] ***Aplocnemus zinoi*** **Stüben 2016; Stüben, P.E. (2016) - Distribution: Salvage Islands**

234 valid (sub-)species

F. Synonyms

[121] ***Echinodera pseudohystrix*** **Stüben 2000**

= *Echinodera gomerensis* Stüben 2000 syn. Stüben, P.E. (2000f), synonymisation by Astrin J.J. & Stüben , P.E. 2011 (Astrin & Stüben 2011) after molecular analysis.

= *Echinodera praedicta* Germann & Stüben 2006 syn., Germann Ch. & P.E. Stüben (2006), synonymisation by Astrin J.J. & Stüben , P.E. 2011 (Astrin & Stüben 2011) after molecular analysis.

[178] ***Calacalles (Nanoacalles) pumilio*** **Bahr 2000**

= *Calacalles agana* Stüben 2010 syn. Stüben, P.E. (2010h), synonymisation by Stüben, P.E. (2015b) after molecular analysis.

[114] ***Kyklioacalles bupleuri*** **Stüben 2004**

= *Kyklioacalles almadensis* Stüben 2004 syn, Stüben, P.E. (2004b), synonymisation by Stüben , P.E. & Astrin J.J. 2010 (Astrin & Stüben 2010) after molecular analysis.

[81] ***Pseudotorneuma besucheti*** **González 1966**

= *Paratorneuma mallorcense* Stüben 2005 syn., Stüben, P.E. (2005c), synonymisation by Stüben, P.E. (2007a); initial description of *P. besucheti* was unkown.

[168] ***Acalles sierrae*** **H. Brisout, 1865**

= *Acalles bazaensis* Stüben 2001 syn., Stüben, P.E. (2001a), synonymisation by Schütte, A. & Stüben, P.E. 2015 after molecular analysis.

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