

# Annotated Catalogue of Type Material of Ciliates (Ciliophora) and some further Protists at the Upper Austrian Museum in Linz (Austria) since 2008

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**Abstract:** The species list in alphabetical order gives information on the recent nomenclatorial status, the original reference, the category and number of types including the accession numbers. Literature references are provided for name changes. This decennial list containing 203 species and subspecies (viz. 181 ciliate, 22 further protist taxa) aims to make accessible important information for future taxonomic and systematic studies. The number of species deposited in this decade can be attributed to the following contributors: FOISSNER (160), DUMACK (7), SCHÖDEL (6), RADEK (6), WILBERT (6), BOURLAND (5), WYLEZICH (3), BERGER (2), SCHMID-HEMPEL (2); ASPÖCK, HÜLSMANN, MEISTERFELD, POSCH, SONNTAG, DRAGESCO, one each. At present the total amount of 983 species-series taxa represented as permanent type slides embraces 949 ciliates and 32 further diverse protists.

**Key words:** Collection, flagellates, fungi, microsporidians, nomenclature, repository, taxonomy, testate amoebae.

## Introduction

The inventory and critical revision of the existing species material of the ciliates and some other protists, which resulted in a kind of “Guidelines for the Typification of Species” (AESCHT 2008), was of great complexity. Photographs of differently crafted specimens and labelled slides document the history of the collection since 1974, thus this is not repeated here. Original names, locations and designation status were (and are) meticulously compared to the literature. On 31 December 2007 at least 2000 “type” slides (not specimens!) of 779 species, classified in 343 genera and 138 families were deposited. A shortened list (omitting type locations) on occasion of the 20<sup>th</sup> anniversary of the “Biological Centre” was provided by (AESCHT 2013). The actualisation below adheres to this traditions, aspects such as non-name bearing vouchers and classification are analysed in the present volume (pages 249–482).

The following abbreviations are used: cp.: compare, HT: holotype, HPT: hapantotype, NT: neotype, PT: paratype, ST: syntype, TL: type location. In addition, a reference code is supplemented as an unambiguous six-digit code enclosed in square brackets. The standardized form of the reference code facilitates

computerised retrieval systems, handling the original literature, viz. the original separate as well as the portable document format (pdf).

The deposition of type and/or voucher slides has become a standard procedure during taxonomic work (cp. WARREN et al. 2017). It is the only possibility to re-study populations and related concepts. Ideally this material is to be held in trust for science by a person responsible for their safe keeping in acknowledged repositories. This responsibility on a fairly long-term basis is costly and cannot be provided in private collections and in universities with their temporary stuff. Thus, the pivotal role of natural history museums and their core activity should be included in the forthcoming 5th edition of the International Code of Zoological Nomenclature. Because of many discrepancies between deposition and repositories mentioned in a publication and actually deposited slides (AESCHT 2008, 2011), a four-eyes principle should be introduced, viz. registration of type specimen(s) should be performed or countersigned by the curator(s) of the relevant institution(s).

## Ciliophora

- acidotolerans* *Oxytricha* WEISSE, MOSER, SCHEFFEL, STADLER, BERENDONK, WEITHOFF & BERGER, 2012 — European Journal of Protistology **49**: 259. **TL**: Acid mining lake near the village of Langau, Lower Austria. **HT**: 2012/109; **PT**: 2012/110, 2012/111 [CI1924].
- alqasabi* *Enchelyodon* FOISSNER, QUINTELA-ALONSO & AL RASHEID, 2008 — Acta Protozoologica **47**: 327. **TL**: Highly saline (21‰) sand soil in the surroundings of the village of Al-Qasab, about 150 km NW of the town of Riyadh, Saudi Arabia, 45°30' E 26° N. **HT**: 2008/89; **PT**: 2008/86, 2008/87, 2008/88, 2008/89, 2008/90, 2008/91, 2008/92, 2008/93 [FOI631].
- alqasabi* *Spathidium* FOISSNER, QUINTELA-ALONSO & AL RASHEID, 2008 — Acta Protozoologica **47**: 323. **TL**: Highly saline (21‰) sand soil in the surroundings of the village of Al-Qasab, about 150 km NW of the town of Riyadh, Saudi Arabia, 45°30' E 26° N. **HT**: 2008/90; **PT**: 2008/86, 2008/87, 2008/88, 2008/89, 2008/90, 2008/91 [FOI631].
- amazonica* *Apoavestina* FOISSNER, 2016 — Denisia **35**: 290. **TL**: Soil from the Anavilhanas peninsula in the Rio Negro, vicinity of Ariau lodge, Manaus, Brazil, 60°W 4°S. **HT**: 2015/239; **PT**: 2015/240, 2015/241, 2015/242 [FOI744]. **Remarks**: Type species of the genus.
- antarctica* *Bickella* WILBERT & SONG, 2008 — Journal of Natural History **42**: 988. **TL**: Benthos samples from rockpools on the sea coast near Bellinghausen Station (62°13'S 58°58'W) and in the littoral zone of Potter Cove (62°14'S 58°40'W), King George Island, Antarctica. **ST** [two type localities are given]: 2007/592 [labeled as holotype]; 2007/593 [cited as holotype in the paper, but labeled as paratype] [PDF090]. **Remarks**: Type species of the genus.
- antarctica* *Holosticha* WILBERT & SONG, 2008 — Journal of Natural History **42**: 990. **TL**: Benthos samples from rockpools and the littoral zone on the sea coast near Bellinghausen Station, King George Island, Antarctica, 62°13'S 58°58'W. **HT**: 2007/589; **PT**: 2007/590 [PDF090].
- antarctica* *Urotricha* WILBERT & SONG, 2008 — Journal of Natural History **42**: 981. **TL**: Rockpools and the littoral zone on the sea coast near Bellinghausen Station, King George Island, Antarctica, 62°13'S 58°58'W. **HT**: 2007/584; **PT**: 2007/585 [PDF090].
- apoprostomata* *Chlamydonella* WILBERT & SONG, 2008 — Journal of Natural History **42**: 983. **TL**: In benthos samples from rockpools and the littoral zone on the sea coast near Bellinghausen Station, King George Island, Antarctica, 62°13'S, 58°58'W. **HT**: 2007/591 [PDF090].
- aquasubterranea* *Tetrahymena* QUINTELA-ALONSO, NITSCHKE, WYLEZICH, ARNDT & FOISSNER, 2013 — Journal of Eukaryotic Microbiology **60**: 245. **TL**: Suburb of Tokai, south Cape Town, Republic of South Africa (34°3'S 18°26'E) **ST**: 2012/114, 2012/115; **PT**: 2012/116, 2012/117, 2012/118, 2012/119 [FOI694].
- arabica* *Oxytricha* FOISSNER, QUINTELA-ALONSO & AL RASHEID, 2008 — Acta Protozoologica **47**: 344. **TL**: Sand dune soil from the Khurays area, NE of the town of Riyadh, Saudi Arabia, 48° E 25° N. **HT**: 2008/81; **PT**: 2008/81, 2008/82, 2008/83, 2008/84, 2008/85 [FOI631].
- arabica* *Pseudohemisincirra* FOISSNER, QUINTELA-ALONSO & AL RASHEID, 2008 — Acta Protozoologica **47**: 343. **TL**: Very sandy pasture soil in the surroundings of the village of Al-Qasab, about 150 km NW of the town of Riyadh, Saudi Arabia, 45°30' E 26° N. **HT**: 2008/106; **PT**: 2008/106, 2008/107, 2008/108 [FOI631]. **Remarks**: Type species of the genus.
- arabicus* *Metauroleptus* FOISSNER, QUINTELA-ALONSO & AL RASHEID, 2008 — Acta Protozoologica **47**: 338. **TL**: Very sandy pasture soil in the surroundings of the village of Al-Qasab, about 150 km NW of the town of Riyadh, Saudi Arabia, 45°30' E 26° N. **HT**: 2008/102; **PT**: 2008/102, 2008/104, 2008/105 [FOI631]. **Remarks**: Type species of the genus.
- arenicola* *Dimacrocaryon* VĎAČNÝ & FOISSNER, 2012 — Denisia **31**: 167. **TL**: Sandy soil from the Restingha area in the surroundings of Rio de Janeiro,

- Brazil, W43° S23°. **HT:** 2011/355; **PT:** 2011/356, 2011/357, 2011/358, 2011/359, 2011/360, 2011/361, 2011/362, 2011/363 [FOI657].
- arndti Apocarchesium* NORF & FOISSNER, 2010 — Journal of Eukaryotic Microbiology **57**: 251. **TL:** River Rhine in the town of Cologne, Germany, 50°54'25"N, 6°58'43"E. **HT:** 2012/48; **PT:** 2012/49, 2012/50, 2012/51, 2012/52, 2012/53, 2012/54, 2012/55, 2012/56, 2012/57, 2012/58, 2012/59, 2012/60, 2012/61 [FOI670].
- asiatica Neokeronopsis* FOISSNER, SHI, WANG & WARREN, 2010 — Acta Protozoologica **49**: 89. **TL:** Freshwater pond in a suburb of the town of Harbin, northern China, E 127° N 45°10'. **ST:** 2010/106, 2010/111; **PT:** 2010/107, 2010/109 [FOI669].
- aspidocauda Agolohymena* BOURLAND & STRÜDER-KYPKE, 2010 — European Journal of Protistology **46**: 225. **TL:** Freshwater irrigation canal bordering Kathryn Albertson Park in Boise, Idaho, U.S.A. 43° 36' 54.93"N; 116° 13' 23.63"W; elevation 817m. **HPT:** 2010/168, 2010/169, 2010/170, 2010/171, 2010/172, 2010/173, 2010/174, 2010/175, 2010/176; 2010/160, 2010/161, 2010/162, 2010/163, 2010/164, 2010/165, 2010/166, 2010/167 [CI1805]. **Remarks:** Type species of the genus.
- aurea Neokeronopsis (Afrokeronopsis)* FOISSNER & STOECK 2008 — Acta Protozoologica **47**: 4. **TL:** Floodplain soil from the Matjula River, i.e., from the surroundings of the Berg-en-dal Lodge near to the southern border of the Krueger National Park, Republic of South Africa, 31°28'E 25°20'S. **ST:** 2007/655, 2007/656; **PT:** 2007/657, 2007/658 [FOI623]. **Remarks:** Type species of the subgenus.
- australiense Paragonostomum* FOISSNER, 2016 — Denisia **35**: 622. **TL:** Litter and soil from crevices of a small mountain in the Macdonnell Ranges slightly south of the town of Alice Springs, Australia, 134°E 23°30'S. **HT:** 2015/536; **PT:** 2015/537, 2015/538 [FOI744].
- australiensis Leptopharynx* OMAR & FOISSNER, 2012 — Acta Protozoologica **50**: 93. **TL:** Soil with litter and fine roots from a jungle in the Botanical Gardens of Cairns, Australia, S16°54' E145°45'. **HT:** 2015/713; **PT:** 2015/714, 2015/715, 2015/716, 2015/717, 2015/718, 2015/719 [FOI701].
- austriacus Cataphractes* FOISSNER, 2016 — Denisia **35**: 118. **TL:** Water and mud from *Sphagnum* cushions of a small bog in the surroundings of the village of Überling, Salzburg country, Austria, 47°48'N 13°03'E. **HT:** 2015/146; **PT:** 2015/147, 2015/148, 2015/149 [FOI744]. **Remarks:** Type species of the genus.
- bambicola Microcolpoda* FOISSNER, 2016 — Denisia **35**: 295. **TL:** Mud from a bamboo stump along the Bowden Hill Road to the Hermitage dam, north of the town of Kingston, Jamaica, 79°46'W 18°5'N. **HT:** 2015/243; **PT:** 2015/244, 2015/245, 2015/246, 2015/247, 2015/248, 2015/249, 2015/250, 2015/251, 2015/252, 2015/253, 2015/254 [FOI744]. **Remarks:** Type species of the genus.
- bergeri bergeri Parabistichella* FOISSNER, 2016 — Denisia **35**: 599. **TL:** Venezuelan site (66), i. e., highly saline (63‰) soil from the outskirts of the village of Chichiriviche, 67°13'W 11°33'N. **HT:** 2015/424; **PT:** 2015/425, 2015/426, 2015/427, 2015/428 [FOI744].
- bergeri brevisticha Parabistichella* FOISSNER, 2016 — Denisia **35**: 606. **TL:** Highly saline (>50‰) litter and humous soil from the coast of Caracas Bay, Curacao Island, north coast of Venezuela, 71°W 12°N. **HT:** 2015/429; **PT:** 2015/430, 2015/431, 2015/432, 2015/433, 2015/434, 2015/435 [FOI744].
- bicaryomorphus Phialinides* FOISSNER, 2016 — Denisia **35**: 241. **TL:** Venezuelan site (56), i. e., slightly saline surface mud and soil from temporary grassland puddles in the surroundings of the village of Chichiriviche, Morrocoy National Park, about 13 km inshore from the north coast, 67°13' W 11°33' N. **HT:** 2015/90; **PT:** 2015/91, 2015/92, 2015/93 [FOI744].
- bimacronucleatus Gonostomoides* FOISSNER, 2016 — Denisia **35**: 637. **TL:** Venezuelan site (57), i. e., moss on stones and soil from a small cave in the Golfete de Cuare del Indio, 67°13'W 11°33'N. **HT:** 2015/516; **PT:** 2015/517 [FOI744]. **Remarks:** Type species of the genus.

- biwae Levicoleps* FOISSNER, KUSUOKA & SHIMANO 2008 — Journal of Eukaryotic Microbiology **55**: 197. **TL**: Shore of Lake Biwa near the Lake Biwa Museum, Karasuma Peninsula, Shiga Prefecture Japan, 35°04'20.64"N 135°56'21.74"E. **ST**: 2007/611, 2007/615; **PT**: 2007/612, 2007/613, 2007/614, 2007/616, 2007/617, 2007/618, 2007/619 [FOI625]. **Remarks**: Type species of the genus.
- brachyproboscis Pseudomonilicaryon* VĎAČNÝ & FOISSNER, 2008 — Acta Protozoologica **47**: 225. **TL**: Soil from a young Pinus forest between the towns of Katarraktis and Vlasia, Peloponese, Greece, E21°57' N38°01' **HT**: 2011/158; **PT**: 2011/159, 2011/160, 2011/161, 2011/162, 2011/163, 2011/164, 2011/165, 2011/166, 2011/167, 2011/168, 2011/169 [FOI654].
- brasiliensis Leptopharynx* FOISSNER & OMAR in OMAR & FOISSNER, 2012 — European Journal of Protistology **48**: 31. **TL**: Dusty, light brown soil... km 42 of the Transpantaneira Road between the cities of Pocone and Porto Jofre, near the Pousada Rio Claro, Pantanal wetland, Mato Grosso, Brazil, S16°39' W56°45'. **HT**: 2015/706; **PT**: 707–712 [FOI661].
- brasiliensis Rimaleptus* VĎAČNÝ & FOISSNER, 2012 — Denisia **31**: 214. **TL**: Rain forest soil from a small island in the Amazon River, Brazil, about 20 km east of the town Manaus, Januari region, W60° S4°. **HT**: 2011/364; **PT**: 2011/365, 2011/366, 2011/367, 2011/368, 2011/369 [labelled as *Dimacrocarion brasiliense*] [FOI657]. **Remarks**: FOISSNER et al. (2002) misidentified the Brazilian site (30) population as *Dileptus breviprobois* but mentioned that it could be considered as a new species, which was established as *Rimaleptus brasiliensis* with the specimen shown in Figs 68h, j as the holotype. This is in accordance with Articles 49 and 72.3 of the ICZN (1999).
- bromelicola Glaucomides* FOISSNER, 2013 — Journal of Eukaryotic Microbiology **60**: 155. **TL**: In tanks of bromeliads from the Pico Isabel de Torres, an 800 m high mountain on the outskirts of the town of Puerto Plata, Dominican Republic, 70°40'W 19°50'N. **ST**: 2016/351, 2016/353, 2016/366, 2016/369 [mislabelled as holotype “for macrostomes and microstomes”]; **PT**: 2016/352, 2016/354–365, 2016/367–368 [FOI717]. **Remarks**: Type species of the genus.
- bromelicola Gonostomum* FOISSNER, 2016 — Denisia **35**: 686. **TL**: Tanks of *Achmea paniculigera* in Jamaica, 77°41'W 18°17'N. **HT**: 2015/582, 2015/583; **PT**: 2015/584, 2015/585, 2015/586, 2015/587 [FOI744].
- bromelicola Leptopharynx* FOISSNER, WOLF, YASHCHENKO & STOECK, 2011 — Journal of Eukaryotic Microbiology **58**: 135. **TL**: Bromeliad tanks on the northern slope of the Blue Mountains, Jamaica, Silver Hill village, 18°12'N, 76°40'W. **HT**: 2015/742; **PT**: 2015/743–751 [FOI666].
- bromelicola Platyophrya* FOISSNER & WOLF, 2011 — Journal of Eukaryotic Microbiology **58**: 88. **TL**: Arborescent and terrestrial tank bromeliads near the road to Rowlandsfield (76°29'W, 18°N), i.e., about 5 km north of the village of Golden Grove, eastern Jamaica. **ST**: 2016/311, 2016/314 [mislabelled as holotype]; **PT**: 2016/312–313, 315–323 [FOI628].
- bromeliophilus Leptopharynx* OMAR & FOISSNER, 2012 — Acta Protozoologica **50**: 90. **TL**: Tanks of *Vriesea* sp., a bromeliad on garden trees of a small farm near the village of Ecclesdown, Jamaica, N18°03' W76°20'. **HT**: 2015/727; **PT**: 2015/728–741 [FOI701].
- canadensis Rimaleptus* VĎAČNÝ & FOISSNER, 2012 — Denisia **31**: 196. **TL**: Bark from trees in the Cypress Provincial Park, Vancouver, Canada, W123°12' N49°23'. **HT**: 2011/346; **PT**: 2011/347, 2011/348 [FOI657].
- caudatum Gonostomum* FOISSNER, 2016 — Denisia **35**: 660. **TL**: Sieved sand with much plant debris from the grass zone of a Resting area about 100 m off the sea, outskirts of Rio de Janeiro, Brazil, 22°54'S 43°12'W. **HT**: 2015/575; **PT**: 2015/576, 2015/577, 2015/578 [FOI744].
- caudatus Gonostomoides* FOISSNER, 2016 — Denisia **35**: 640. **TL**: Soil from the Isla Robinson Crusoe, Archipelago Juan Fernandez, Chile, 33°S 78°W. **HT**: 2015/521; **PT**: 2015/522, 2015/523, 2015/524 [FOI744].



- chilensis Bistichella* FOISSNER, 2016 — Denisia **35**: 592. **TL**: Soil from a dry area of the Fray Jorge National Park in the surroundings of the town of Coquimbo, Chile, 72°W 30°S. **HT**: 2015/440; **PT**: 2015/441, 2015/442, 2015/443 [FOI744].
- chilensis Cladotricha* FOISSNER, 2016 — Denisia **35**: 541. **TL**: Highly saline soil from the bank of the Rio Loa near to the town of Calama, Chile, 69°W 23°S. **HT**: 2015/512; **PT**: 2015/513, 2015/514, 2015/515 [FOI744].
- chobicola Ileonema* FOISSNER, 2016 — Denisia **35**: 52. **TL**: Soil from the dry, green bed of the Chobe River near the Muchenje Safari Lodge, Botswana, 24°40'E 18°S. **HT**: 2015/159; **PT**: 2015/160 [as *I. pelobia*] [FOI744].
- coeruleus Condylostomides* FOISSNER, 2016 — Denisia **35**: 851. **TL**: Venezuelan site (56), i. e., slightly saline mud and soil from temporary grassland puddles in the surroundings of the village of Chichiriviche, Morrocoy National Park, 67°13'W 11°33'N. **HT**: 2015/346; **PT**: 2015/347, 2015/348, 2015/349, 2015/350, 2015/351, 2015/352, 2015/353, 2015/354, 2015/355, 2015/356, 2015/357, 2015/358, 2015/359 [FOI744].
- costatus gonohymen Leptopharynx* FOISSNER & OMAR in OMAR & FOISSNER, 2012 — European Journal of Protistology **48**: 39. **TL**: Leaves, soil and lichens from middle and southern Florida, USA (samples of surroundings of the town of St. Petersburg and St. Augustine were small and united). Accordingly, the type locality cannot be fixed exactly. **ST**: 2015/720 [mislabelled as two holotypes “for small morph” and “large morph”, respectively]; **PT**: 2015/721, 2015/722, 2015/723, 2015/724, 2015/725, 2015/726, 2015/761–774 [mislabelled as types of *L. costatus costatus*] [FOI661].
- crassicirratum Monomicrocaryon* FOISSNER, 2016 — Denisia **35**: 762. **TL**: Soil from the rainforest in the outskirts of the village of Quillabamba, Peru, 72°41'W 12°51'S. **HT**: 2015/598; **PT**: 2015/599, 2015/600, 2015/601, 2015/602, 2015/603, 2015/604 [FOI744].
- curiosum Spathidium* FOISSNER, 2016 — Denisia **35**: 204. **TL**: Surface soil of a savanna in the Parque Nacional Torres del Paine, Lago de Oros, Chile, 73°26'W 51°0'S. **HT**: 2015/63; **PT**: 2015/64, 2015/65, 2015/66, 2015/67 [FOI744].
- denticulata Odontochlamys* FOISSNER, 2016 — Denisia **35**: 424. **TL**: Venezuelan site (3), i. e., mosses from a roadside Laja (granitic rock-pool) and from neighbouring trees of a tropical dry forest (Selva Veranera) about 150 km NE of Puerto Ayacucho, 66°50'E 7°N. **HT**: 2015/342; **PT**: 2015/343, 2015/344, 2015/345 [FOI744].
- digitata Cladotricha* FOISSNER, 2016 — Denisia **35**: 550. **TL**: Highly saline (~ 100‰) soil from a dry lagoon in the Santa Rosa National Park, Costa Rica, 35°38'W 10°50'N. **HT**: 2015/545; **PT**: 2015/503, 2015/504 [FOI744].
- dimorpha Pseudourostyla* FOISSNER, 2016 — Denisia **35**: 525. **TL**: Venezuelan site (24), i. e., soil from a *Tachypogon* savannah about 50 km north of the town of Puerto Ayacucho, 67°36'W 5°41'N. **ST**: 2015/497 [mislabelled as two holotypes “for slender cells” and “for broad cells”]; **PT**: 2015/498, 2015/499, 2015/694 [mislabelled *Paraurostyla d.*] [FOI744].
- dispar Spathidium* FOISSNER, 2016 — Denisia **35**: 217. **TL**: Venezuelan site (57), i. e., moss on stones and soil from the Cueva del Indio, a small cave near the village of Chichiriviche, north coast of the Morrocoy National Park, 67°13'W 11°33'N. **HT**: 2015/73; **PT**: 2015/74, 2015/75 [FOI744].
- dragescoi Euplotes* WILBERT & SONG, 2008 — Journal of Natural History **42**: 1003. **TL**: Rockpools and the littoral zone on the sea coast near Bellinghausen Station, King George Island, Antarctica, 62°139'S 58°58'W. **HT**: 2007/586; **PT**: 2007/587 [PDF090].
- duschli Spathidium* FOISSNER, 2016 — Denisia **35**: 207. **TL**: Venezuelan site (14), i. e., highly fertile field (Mahadja) soil from the surroundings of Puerto Ayacucho, 67°36'W 5°41'N. **HT**: 2015/132; **PT**: 2015/133, 2015/134, 2015/135 [FOI744].
- ecuadoriana Sterkiella* FOISSNER, 2016 — Denisia **35**: 810. **TL**: Litter and surface soil near the entrance to the El Pahuma Orchid Reserve 35 km northwest of Quito, Ecuador, 1800 m above sea level, 00°01'N 78°38'W. **HT**: 2015/634; **PT**: 2015/635, 2015/636, 2015/637, 2015/638 [FOI744].

- edaphonicus Apodileptus* VĎAČNÝ & FOISSNER, 2012 — *Denisia* **31**: 339. **TL**: Soil from southern Florida, USA, W81° N26°. **HT**: 2011/202; **PT**: 2011/203, 2011/204, 2011/205, 2011/206, 2011/207, 2011/208, 2011/209 [FOI657].
- ellipsoidea ellipsoidea Metathrix* FOISSNER, 2016 — *Denisia* **35**: 469. **TL**: Venezuelan site (31), viz., a small ephemeral puddle (Laja) on granitic outcroppings between the Agricultural Research Institute and the airport of Pto. Ayacucho, 67°36'W 5°41'N. **HT**: 2015/299; **PT**: 2015/300 [FOI744]. **Remarks**: Type species of the genus.
- ellipsoidea oligostriata Metathrix* FOISSNER, 2016 — *Denisia* **35**: 474. **TL**: Floodplain soil from the Aurelio Lagoon in the Paraná River floodplain, surroundings of the town of Maringá, State of Mato Grosso do Sul, Brazil, W53°15' S22°40'. **HT**: 2015/301; **PT**: 2015/302, 2015/303 [FOI744].
- ephemera Colpoda* FOISSNER, 2016 — *Denisia* **35**: 265. **TL**: Floodplain soil from the Matjula River in the surroundings of the Berg-en-dal Lodge near to the southern border of the Krueger National Park, Republic of South Africa, 31°28'E 25°20'S. **HT**: 2015/263; **PT**: 2015/264, 2015/265, 2015/266, 2015/267, 2015/268, 2015/269, 2015/270 [FOI744].
- epistylis Pseudotolotrochidium* FOISSNER, 2016 — *Denisia* **35**: 475. **TL**: Floodplain soil of the Rio Claro about 10 km upstream of the Pousada Rio Claro, northern Pantanal, Brazil, 56°62'W 16°25'S. **ST**: 2015/382, 2015/387; **PT**: 2015/383, 2015/384, 2015/385, 2015/386, 2015/387, 2015/388, 2015/389 [FOI744]. **Remarks**: Type species of the genus.
- ethiopiensis Aciculoplites* FOISSNER & GABILONDO in GABILONDO & FOISSNER, 2009 — *Acta Protozoologica* **48**: 6. **TL**: Saline (16‰) pasture soil in the surroundings of Lake Ziway, Ethiopia, E38°4' N7°5', 1636 m above sea level. **HT**: 2010/46; **PT**: 2010/46, 2010/47, 2010/48, 2010/49, 2010/50, 2010/51 [FOI634]. **Remarks**: Type species of the genus.
- euglenivorum fimbriarratum Monomicrocaryon* FOISSNER, 2016 — *Denisia* **35**: 757. **TL**: Venezuelan site (1), i. e., upper soil layer from the Orinoco floodplain at the village of Cabruta, Venezuela, 7°38'N 66°14'W. **HT**: 2015/614; **PT**: 2015/615, 2015/616 [FOI744].
- extraordinaria Schmidingerothrix* FOISSNER, 2012 — *European Journal of Protistology* **48**: 239. **TL**: Highly saline (90‰) soil from Fischer's Pan in the Etosha National Park, Namibia, S 18°45', E 16°55''. **HT**: 2012/26; **PT**: 2012/27, 2012/28 [FOI689]. **Remarks**: Type species of the genus.
- flava Neobakuella* LI, KHAN, JI, SHIN & BERGER, 2011 — *Journal of Eukaryotic Microbiology* **58**: 350. **TL**: Brackish water from Taehwagang River (35°32'56''N, 129°20'11''E) near Ulsan Bay, Ulsan, South Korea. **HT**: 2011/1 [CI1921]. **Remarks**: Type species of the genus.
- floridensis Enchelyodon* FOISSNER, 2016 — *Denisia* **35**: 141. **TL**: Soil from the Everglades in Florida, USA, Pine trail, 80°41'W 39°N. **HT**: 2015/97; **PT**: 2015/100, 2015/101, 2015/98, 2015/99 [FOI744].
- fraterculum Pseudomonilicaryon* VĎAČNÝ & FOISSNER, 2012 — *Denisia* **31**: 371. **TL**: Soil from a puddle in front of the Idaho Transportation Department Building, Boise, Idaho, USA, W116°13'50" N 43°38'10". **HT**: 2011/231; **PT**: 2011/232, 2011/233, 2011/234, 2011/235, 2011/236, 2011/237, 2011/238, 2011/239, 2011/240, 2011/241, 2011/242, 2011/243, 2011/244, 2011/245, 2011/246, 2011/247, 2011/248 [FOI657].
- fraterculum Semispathidium* FOISSNER & AL-RASHEID in FOISSNER, HESS & AL-RASHEID, 2010 — *European Journal of Protistology* **46**: 62. **TL**: Soil from the Chobe River floodplain, Kabolebole Peninsula, Botswana, southern Africa, E17° 50'. S 25°. **HT**: 2011/398; **PT**: 2011/399, 2011/400, 2011/401, 2011/402, 2011/403, 2011/404 [FOI630].
- fraterculus Australothrix* FOISSNER, 2016 — *Denisia* **35**: 491. **TL**: Litter and soil from the outskirts of the town of Yungning, about 90 km northeast of Beijing, entrance to the Big Wall at Badaling, surroundings of the toilet, China, 116°10'E 40°20'N. **HT**: 2015/463; **PT**: 2015/464, 2015/465, 2015/466 [FOI744].
- fraterculus Bilamellophrya* FOISSNER, 2016 — *Denisia* **35**: 99. **TL**: Upper, slightly saline (8‰) soil layer of a small grass island in the mangrove for-

- est about 10 km west of the town of Puerto Plata, Dominican Republic, 70°35'W 19°50'N. **HT:** 2015/165; **PT:** 2015/166, 2015/167 [FOI744].
- fraterculus Gonostomoides* FOISSNER, 2016 — Denisia **35:** 644. **TL:** Soil under a *Pandanus* palm in the garden of the hotel San Fernando, Puerto Ayora, Santa Cruz Island, Galápagos, 0°37'S 90°21'W. **HT:** 2015/525; **PT:** 2015/526, **PT:** 2015/527 [FOI744].
- fraterculus Gonostomum* FOISSNER, 2016 — Denisia **35:** 696. **TL:** Surface litter and loamy soil up to 5 cm depth on an island in the Amazon River, Januári region, outskirts of the town of Manaus, Brazil, 60°W 4°S. **HT:** 2015/588; **PT:** 2015/589, 2015/590, 2015/591 [FOI744].
- galapagensis Gonostomoides* FOISSNER, 2016 — Denisia **35:** 632. **TL:** Surface soil under a tree with many epiphytic orchids in the Sierra Negra Crater near the volcano “Chico”, 1050 m above sea level, Isabela Island, Galápagos, 0°57'S 90°57'W. **HT:** 2015/518; **PT:** 2015/519, 2015/520 [FOI744]. **Remarks:** Type species of the genus.
- galapagensis Lingulothrix* FOISSNER, 2016 — Denisia **35:** 106. **TL:** Soil from the garden of the hotel San Fernando, Puerto Ayora, Galápagos Islands, 0°44' S 90°18' W. **HT:** 2015/140; **PT:** 2015/141, 2015/142, 2015/143 [FOI744]. **Remarks:** Type species of the genus.
- galapagensis Pseudoplatyophrya* FOISSNER, 2016 — Denisia **35:** 308. **TL:** Galápagos sample (68), i. e., highly saline (~ 30‰) soil and tree bark from a mangrove forest near the village of Puerto Villamil, south coast of Isabela Island, 0°57'S 90°57'W. **HT:** 2015/172; **PT:** 2015/174, 2015/327 [FOI744].
- galapagensis Urosomoida* FOISSNER, 2016 — Denisia **35:** 800. **TL:** Galápagos site (68), i. e., saline (~ 30 ‰) soil and tree bark from a mangrove forest near to the village of Puerto Villamil, south coast of Isabela Island, 0°57'S 90°57' W. **HT:** 2015/642; **PT:** 2015/643, 2015/644 [FOI744].
- gemmae Bryophrya* BOURLAND, VĎAČNÝ, DAVIS & HAMPIKIAN, 2011 — Journal of Eukaryotic Microbiology **58:** 35. **TL:** Boise, elevation 813 m, Idaho, U.S.A., 43°38'10.82"N 116°13'50.5"W. **HT:** 2011/2; **PT:** 2011/3–8 [ZR0064].
- gibbera Stylonychia* FOISSNER, 2016 — Denisia **35:** 828. **TL:** Venezuelan site (1), i. e., upper soil layer from the Orinoco floodplain at the village of Cabruta, Lower Orinoco, 66°14'W 7°38'N. **HT:** 2015/666; **PT:** 2015/667, 2015/668, 2015/669, 2015/670, 2015/671, 2015/672, 2015/673 [FOI744].
- gondwanensis Enchelyodon* FOISSNER, 2016 — Denisia **35:** 136. **TL:** Soil from a horse pasture in the surroundings of the Selva Verde Lodge, Pto. Viejo, Costa Rica, 84°6'W 10°45'N. **HT:** 2015/94; **PT:** 2015/95, 2015/96 [FOI744].
- gracile oviplites Pseudomonilicaryon* VĎAČNÝ & FOISSNER, 2012 — Denisia **31:** 399. **TL:** Soil and mud from a rockpool on granitic outgrowths (Lajas) in the surroundings of the farm of Mr. Eisenberg, about 50 km NE of Puerto Ayacucho, Venezuela, W67°20' N6°10'. **HT:** 2011/178; **PT:** 2011/179, 2011/180, 2011/181, 2011/182, 2011/183, 2011/184 [FOI657].
- grandis Coriplites* OERTEL, WOLF, AL-RASHEID & FOISSNER, 2008 — Acta Protozoologica **47:** 237. **TL:** Upper soil layer (0–5 cm) of a swamp near Eubenangee, south of Cairns, Australia, 17°S 145°E. **HT:** 2010/22; **PT:** 2010/22, 2010/23, 2010/24, 2010/25, 2010/26, 2010/27 [FOI633].
- granulatum Monomicrocaryon* FOISSNER, 2016 — Denisia **35:** 752. **TL:** Upper soil layer of the rainforest in the Henri Pittier National Park, north coast of Venezuela, 67°37'W 10°30'N. **HT:** 2015/610; **PT:** 2015/611, 2015/612, 2015/613 [FOI744]. **Remarks:** Type species of the genus.
- guhli Epistylis* SCHÖDEL, 2018 — Denisia **41:** 127. **TL:** Mittel-Ebrach bei Burgebrach, Germany. **ST:** 2017/281, 2017/282, 2017/283, 2017/284, 2017/285.
- halophila Caudiholosticha* FOISSNER, 2016 — Denisia **35:** 532. **TL:** Venezuelan site (54), i. e., saline soil from flooded coastal grassland in the Morrocoy National Park, 67°13'W 11°33'N. **HT:** 2015/494; **PT:** 2015/495, 2015/496 [FOI744].
- halophila Notodeviata* FOISSNER, 2016 — Denisia **35:** 567. **TL:** Venezuelan site (65), i. e., highly saline soil from the north coast, Morrocoy National Park, surroundings of the village of Chichiriviche, 67°13'W 11°33'N. **HT:** 2015/416;



**PT:** 2015/332, 2015/415, 2015/417, 2015/418, 2015/419, 2015/420, 2015/421, 2015/422, 2015/423, 2015/444 [FOI744]. **Remarks:** Type species of the genus.

*halophila Urosomoida* FOISSNER, 2016 — *Denisia* **35:** 796. **TL:** Venezuelan site (65), i. e., hypersaline (50‰) soil from the north coast, 67°13'W 11°33'N. **HT:** 2015/639; **PT:** 2015/640, 2015/641 [FOI744].

*halophilum Gonostomum* FOISSNER, 2016 — *Denisia* **35:** 651. **TL:** Highly saline soil from a mangrove swamp in the outskirts of the town of Cairns, Australia, 145°E 17°S. **HT:** 2015/553; **PT:** 2015/554, 2015/555 [as *H. halophila*] [FOI744].

*hawaiensis Psilotrichides* HEBER, STOECK & FOISSNER, 2014 — *Journal of Eukaryotic Microbiology* **61** 275. **TL:** Surface soil and litter (0–3 cm) from an ephemeral swamp on Koko Head, Oahu Island, Hawaiian archipelago, W157°41'44' N21°15'52". **HT:** 2013/38; **PT:** 2013/39–46 [FOI738]. **Remarks:** Type species of the genus.

*implicata Apertospathula* (KAHL, 1930) FOISSNER & OERTEL, 2009 — *European Journal of Protistology* **45:** 213. **Neotype locality:** [U]pper mud and soil layer of a shallow meadow puddle near the centre of the town Salzburg, Austria, 47°47'N, 13°02'E. **NT:** 2013/28, 2013/29, 2013/30, 2013/31, 2013/32 [FOI626].

*inopinatum Spathidium* FOISSNER, 2016 — *Denisia* **35:** 201. **TL:** Venezuelan site (14), i. e., soil from a Tachypogon savanna in the outskirts of the town of Puerto Ayacucho, 67°36'W 5°41'N. **HT:** 2015/68; **PT:** 2015/69, 2015/70, 2015/71, 2015/72 [FOI744].

*inornata Etoschophrya* BOURLAND, HAMPIKIAN & VĎAČNÝ, 2012 — *Zoologica scripta* **41:** 404. **TL:** Ephemeral freshwater puddles at the margin of a grass sports field at Fort Boise Park in Boise, Idaho, USA, N43°36'52.33" W116°11'21.75" elevation 832 m. **HT:** 2013/50; **PT:** 2013/51, 2013/52, 2013/53, 2013/54, 2013/55 [CI1916].

*isabelae Hemioxytricha* FOISSNER, 2016 — *Denisia* **35:** 770. **TL:** Galápagos site (68), i. e., highly saline (~ 30‰) soil and bark from a mangrove forest near the village of Puerto Villamil, Galápagos, south coast of Isabela Island, 0°57'S 90°57'W.

**HT:** 2015/645; **PT:** 2015/646, 2015/647 [FOI744]. **Remarks:** Type species of the genus.

*isabelae Pseudoplatyophrya* FOISSNER, 2016 — *Denisia* **35:** 304. **TL:** Galápagos sample (68), i. e., highly saline (~ 30‰) soil and tree bark from a mangrove forest near the village of Puerto Villamil, south coast of Isabela Island, 0°57'S 90°57'W. **HT:** 2015/173 [FOI744].

*isostichos Enchelyodon* FOISSNER, 2016 — *Denisia* **35:** 146. **TL:** Venezuelan site (1), i. e., soil from floodplain of the Orinoco River in the surroundings of the village of Cabruta, 66°14'W 7°38'N. **HT:** 2015/102; **PT:** 2015/103, 2015/104, 2015/105 [FOI744].

*jaerae Cothurnia* SCHÖDEL, 2018 — *Denisia* **41:** 181. **TL:** Regnitz, Bamberg, Germany. **ST:** 2017/295, 2017/296, 2017/297.

*kenyaensis Bistichella* FOISSNER, 2016 — *Denisia* **35:** 596. **TL:** Litter and soil from the surroundings of the Kilimanjaro Lodge in Kenya, tropical Africa, 37°E 3°S. **HT:** 2015/436; **PT:** 2015/437, 2015/438, 2015/439 [FOI744].

*lajacola Apocoriplites* OERTEL, WOLF, AL-RASHEID & FOISSNER, 2008 — *Acta Protozoologica* **47:** 242. **TL:** Mosses from a roadside Laja (granit rock-pool) and from trees of a tropical dry forest (Selva Veranea) about 150 km NE Puerto Ayacucho, Venezuela, E66°05' N7°. **HT:** 2010/15; **PT:** 2010/14, 2010/15, 2010/16, 2010/17, 2010/18 [FOI633]. **Remarks:** Type species of the genus.

*lajacola Enchelys* FOISSNER & OERTEL, 2009 — *European Journal of Protistology* **45:** 211. **TL:** Mud and algal crusts from a roadside laja about 150 km NE of Puerto Ayacucho, Venezuela, i. e., in the savanna between the towns of La Urbana and Las Ventanas, 7°N, 66°56'W. **HT:** 2010/7; **PT:** 2010/10, 2010/11, 2010/12, 2010/13, 2010/7, 2010/8, 2010/9 [FOI626].

*lajacola Gonostomum* FOISSNER, 2016 — *Denisia* **35:** 676. **TL:** Venezuelan site (32), i. e., soil under a carpet of Velosiacean plants in a lithotelma (Laja) between the Agricultural Research Station and the airport of Puerto Ayacucho, 67°36'W 5°41'N. **HT:** 2015/579; **PT:** 2015/580, 2015/581 [FOI744].



- lajacola Grossglockneria* FOISSNER, 2016 — Denisia **35**: 302. **TL**: Venezuelan site (32), i. e., ephemeral puddles (Lajas) on granitic outcroppings between the Agricultural Research Institute and the airport of Puerto Ayacucho, 68°W 6°N. **HT**: 2015/175; **PT**: 2015/176, 2015/177 [FOI744].
- lajacola Leptopharynx* OMAR & FOISSNER, 2014 — Acta Protozoologica **53**: 308. **TL**: Soil, mud, and moss from ephemeral puddles (Lajas) with Vellosiacean plants in the surroundings of the farm of Mr. Eisenberg, outskirts of the town of Puerto Ayacucho, Venezuela, 5°40'N, 67°35'W. **HT**: 2015/752; **PT**: 2015/753 [as *Drepanomonas l.*] [FOI742].
- lajacola Paracolpoda* FOISSNER, 2016 — Denisia **35**: 275. **TL**: Venezuelan site (30), i. e., mud from an ephemeral lithotelma (Laja) on granitic outcroppings between the Agricultural Research Institute and the airport of Puerto Ayacucho, 67°36'W 5°41'N. **HT**: 2015/255; **PT**: 2015/256, 2015/257, 2015/258, 2015/259, 2015/260, 2015/261, 2015/262 [FOI744].
- lajacola Protoplagiocampa* FOISSNER, 2016 — Denisia **35**: 452. **TL**: Venezuelan site (30), viz., mud and soil from ephemeral puddles (Lajas) on granitic outcroppings between the Agricultural Research Institute and the airport of Pto. Ayacucho, 67°36'W 5°41'N. **HT**: 2015/317; **PT**: 2015/318, 2015/319, 2015/320, 2015/321, 2015/322, 2015/323, 2015/324 [FOI744]. **Remarks**: Type species of the genus.
- lamentschwandneri Apofrontonia* FOISSNER & SONG, 2002 — European Journal of Protistology **38**: 223. **TL**: Saline soil from flooded grassland in the Maracay National Park, north coast of Venezuela, E 68° N 10°. **HT**: 2008/168; **PT**: 2008/164, 2008/165, 2008/166, 2008/167, 2008/168 [FOI481]. **Remarks**: Recorded as missing in Table 3 on page 191 by AESCHT (2008).
- lithofera Oxytricha* FOISSNER, 2016 — Denisia **35**: 699. **TL**: Venezuelan site (57), i. e., moss on stones and soil from a small cave in the Golfete de Cuare del Indio, 69°W 11°N. **HT**: 2015/626; **PT**: 2015/627 [FOI744].
- litoralis Birojimia* FOISSNER, 2016 — Denisia **35**: 504. **TL**: Venezuelan site (47), i. e., coastal sand and soil from the Henri Pittier National Park, surroundings of the village of Choroni, 67°37'W 10°30'N. **HT**: 2015/467; **PT**: 2015/468, 2015/469, 2015/470 [FOI744].
- longigranulosa imperfecta Oxytricha* FOISSNER, 2016 — Denisia **35**: 749. **TL**: Venezuelan site (14), i. e., highly fertile field (Mahadja) soil from the outskirts of Puerto Ayacucho, 67°36'W, 5°41'N. **HT**: 2015/689; **PT**: 2015/690 [FOI744].
- longigranulosa sinensis Oxytricha* FOISSNER, 2016 — Denisia **35**: 742. **TL**: Litter and mud/soil from a dry river drain in the surroundings of the Wei Ming hotel, outskirts of the town of Beijing, China, 116°E 39°N. **HT**: 2015/685; **PT**: 2015/686, 2015/687, 2015/688 [FOI744].
- longisetum Bryophyllum* FOISSNER & LEI, 2004 — Linzer biologische Beiträge **36**/1: 171. **TL**: Soil from Kenyan part of the Kilimanjaro, about 2600 m above sea-level, 38°E 2°S. **HT**: 2008/169; **PT**: 2008/169, 2008/170, 2008/171, 2008/172 [FOI513]. **Remarks**: Recorded as missing in Table 3 on page 192 by AESCHT (2008).
- longitrichus Dileptus* VĎAČNÝ & FOISSNER, 2008 — Acta Protozoologica **47**: 219. **TL**: Soil from a mixed forest in the surroundings of the town of Tsukuba, Japan, E140°04' N36°02'. **HT**: 2011/272; **PT**: 2011/273, 2011/274, 2011/275, 2011/276, 2011/277, 2011/278, 2011/279, 2011/280, 2011/281, 2011/282, 2011/283, 2011/284 (currently *Rimaleptus l. sh.* VĎAČNÝ & FOISSNER 2012 — Denisia **31**: 232) [FOI654].
- macrostoma Platyophryides* FOISSNER, 2016 — Denisia **35**: 409. **TL**: In mud of bamboo stumps from the Bamboo Avenue west of the town of Lacoquia, Jamaica, 77°49'W 18°05'N. **HT**: 2015/207; **PT**: 2015/208, 2015/209, 2015/210, 2015/211, 2015/212, 2015/213, 2015/214, 2015/215 [FOI744].
- magnus Platyophryides* FOISSNER, 1993 — Protozoenfauna **4**/1: 605. **TL**: Upper soil layer (0–5 cm) of a coastal sand dune with sparse vegetation in Singapore, Asia, E 103°, N 1°. **HT**: 2008/117; **PT**: 2008/116, 2008/118 [FOI282].
- mahadjacola Oxytrichella* FOISSNER, 2016 — Denisia **35**: 776. **TL**: Venezuelan site (23), i. e., Mahadja soil from the surroundings of the village of

- El Sapo, about 50 km north of Puerto Ayacucho, 67°36'W 5°41'N. **HT:** 2015/617; **PT:** 2015/618, 2015/619, 2015/620 [FOI744]. **Remarks:** Type species of the genus.
- matisi Kahliella* VĎAČNÝ, TIRJAKOVA, TOTHOVA, PRISTAS & JAVORSKY, 2010 — European Journal of Protistology **46**: 323. **TL:** [Type locality not given]. **HT:** 2010/158; **PT:** 2010/159 [CI1918].
- meisterfeldi Heterometopus* FOISSNER, 2016 — European Journal of Protistology **55**(B): 119. **TL:** East of the town of Darwin, grass litter and soil from the dry bottom of the Fogg Dam, Australia, 12°34' S 131°18' E. **HT:** 2015/364; **PT:** 2015/363, 2015/364, [instead “2015/848” and “2015/849–851”, respectively given in the paper] [FOI755].
- meridiana Maryna* FOISSNER, 2016 — Denisia **35**: 317. **TL:** In tanks of *Guzmania monostachia* (Bromeliaceae) along the road from the village of Quick Step to the Aberdeen House, Jamaica, St. Elisabeth, about 77°33'W 21°30' N. **HT:** 2015/194; **PT:** 2015/195, 2015/196, 2015/197, 2015/198, 2015/199, 2015/200 [FOI744].
- metopoides Bromeliothrix* FOISSNER, 2010 — Acta Protozoologica **49**: 161. **TL:** A tank bromeliad from a tree of the Nature Reserve Mata do Buraquinho in the town of João Pessoa, Paraíba, Brazil, W 35° S 8°. **ST:** 2016/324, 2016/325, 2016/333, 2016/347 [mislabelled as holotypes “for micro- and macrostomes”]; **PT:** 2016/326, 2016/334–342, 2016/348 [FOI668]. **Remarks:** Type species of the genus.
- micelae Luporinophrys* FOISSNER, 2005 — European Journal of Protistology **41**: 102. **TL:** Slightly saline surface mud and soil from temporary grassland puddles in the surroundings of the village Chichiriviche, Maracay National Park, about 13 km inshore from the north coast of Venezuela, W67°13' N11°33'. **HT:** 2008/124; **PT:** 2008/123, 2008/126, 2008/127 [FOI484]. **Remarks:** Recorded as missing in Table 3 on page 192 by AESCHT (2008).
- microstoma Dileptus* VĎAČNÝ & FOISSNER, 2008 — Acta Protozoologica **47**: 212. **TL:** Soil from the University Campus in Abomey-Calavi, Benin, Africa, E2°21' N6°27'. **HT:** 2011/249; **PT:** 2011/250, 2011/251, 2011/252, 2011/253, 2011/254, 2011/255 [FOI654]. **Remarks:** Currently *Microdileptus m.* sp. VĎAČNÝ & FOISSNER 2012 — Denisia **31**: 252 [FOI657].
- minutum Trimyema* (KAHL 1931) AUGUSTIN, FOISSNER & ADAM 1987 – BAUMGARTNER, STETTER & FOISSNER, 2002 — Journal of Eukaryotic Microbiology **49**/3: 229. **Neotype locality:** Beach north of Porto di Levante at Vulcano Island, Italy, 38° 25' 5" N, 14° 57' 14" E. **NT:** 2008/128, 2008/129, 2008/130, 2008/131, 2008/132, 2008/133, 2008/134, 2008/135, 2008/136, 2008/137, 2008/138 [FOI485].
- monoarmata Suturothrix* FOISSNER, 2008 — Soil Organisms **80**: 89. **TL:** Upper soil layer (0 – 5 cm) from a coastal bushland in Singapore, Asia, E 103° N 1°. **HT:** 2011/380; **PT:** 2011/381, 2011/382, 2011/383 [FOI632]. **Remarks:** Type species of the genus.
- monoarmatus monoarmatus Enchelyodon* FOISSNER, 2016 — Denisia **35**: 154. **TL:** Venezuelan site (1), i. e., soil from the floodplain of the Orinoco River in the surroundings of the village of Cabruta, 66°14'W 7°38' N. **HT:** 2015/121; **PT:** 2015/122, 2015/123, 2015/124 [FOI744].
- monoarmatus pyriformis Enchelyodon* FOISSNER, 2016 — Denisia **35**: 166. **TL:** Soil from the Chobe River, Kabolebole Peninsula, southern Africa, 17°50' E 25°S. **HT:** 2015/113; **PT:** 2015/114, 2015/115, 2015/116, 2015/117, 2015/118, 2015/119, 2015/120 [FOI744].
- monomacronucleatus Cinetochilides* FOISSNER, 2016 — Denisia **35**: 440. **TL:** Soil surrounding roots of bulbs from Prospero, Antalya, Cakilli Gecidi, about 11 km SE of the town of Cevizli, 1200 NN, Anatolia, Turkey, 31°45'E 37°45'N. **HT:** 2015/331; **PT:** 2015/332, 2015/333, 2015/334, 2015/444 [FOI744].
- monostyla Erimophrya* FOISSNER, QUINTELA-ALONSO & AL RASHEID, 2008 — Acta Protozoologica **47**: 348. **TL:** Soil from Tenerife, southwest coast of Candelaria, Spain, 28° N 17° W. **HT:** 2008/99; **PT:** 2008/100, 2008/101, 2008/99 [FOI631].
- monotricha Plagiocampa* FOISSNER, 2016 — Denisia **35**: 459. **TL:** Venezuelan site (52), i. e., upper soil layer of a gallery forest some km south of the village of Choroní, 67°37' W 10°30'N. **HT:**

- 2015/304; **PT:** 2015/305, 2015/306, 2015/307, 2015/308 [FOI744].
- multinucleatum* *Gonostomum* FOISSNER, 2016 — *Denisia* **35**: 679. **TL:** Soil from an abandoned cacao plantago near Punta Pirikiki, about 54 km south of Limon, Caribbean Sea coast of Costa Rica, Central America, 82°40'W, 9°40'N. **HT:** 2015/562; **PT:** 2015/563, 2015/564, 2015/565, 2015/566, 2015/567 [FOI744].
- multinucleatus* *Apotrachelius* VĎAČNÝ & FOISSNER, 2012 — *Denisia* **31**: 135. **TL:** Brackish coastal pond at Safwa village, Saudi Arabian Gulf coast, E50°06' N26°39'. **HT:** 2011/195; **PT:** 2011/196, 2011/197, 2011/198, 2011/199, 2011/200, 2011/201 [FOI657]. **Remarks:** Type species of the genus.
- nodosa salisburgensis* *Fuscheria* FOISSNER & GABILONDO in GABILONDO & FOISSNER, 2009 — *Acta Protozoologica* **48**: 16. **TL:** Upper mud and soil layer of a shallow meadow puddle in the surroundings of the former Henkerhaus (house of the hangman) near the centre of the town of Salzburg, Austria, E13°02' N47°47'. **HT:** 2010/52/1; **PT:** 2010/52/2, 2010/53, 2010/54, 2010/55, 2010/56, 2010/57, 2010/58, 2010/59, 2010/60, 2010/61, 2010/62 [FOI634].
- notophorides* *Stylonychia* FOISSNER, 2016 — *Denisia* **35**: 835. **TL:** Soil from Venezuelan site (24), i. e., a heavily used pasture in the outskirts of the town of Puerto Ayacucho, 67°36'W 5°41'N. **HT:** 2015/681; **PT:** 2015/683, 2015/684 [FOI744].
- oblongistoma* *Sagittarides* FOISSNER & BUOSI in FOISSNER, 2016 — *Denisia* **35**: 393. **TL:** Venezuelan site (65), i. e., highly saline soil from the north coast of Venezuela, Morrocoy National Park, surroundings of the village of Chichiriviche, 67°13'W 11°33'N. **HT:** 2015/216; **PT:** 2015/217, 2015/218, 2015/219, 2015/220,, 2015/221, 2015/222, 2015/223, 2015/224 [as *Sagittaria* o.] [FOI744]. **Remarks:** Type species of the genus.
- ocellatus* *Bryophryoides* BOURLAND, WENDELL, HAMPIKIAN & VĎAČNÝ, 2014 — *European Journal of Protistology* **50**: 65. **TL:** Soil from Fort Boise Park, Boise, Idaho, U.S.A., 43°37'0.47" N, 116°11'20.56" W. **HT:** 2014/4; **PT:** 2014/5, 2014/6, 2014/7, 2014/8, 2014/9, 2014/10, 2014/11, 2014/12, 2014/13, 2014/4, 2014/15, 2014/16 [CI1988].
- panamensis* *Totothrix* FOISSNER, 2016 — *Denisia* **35**: 817. **TL:** Brownish surface soil (pH 8) from the foot of the Cerro Pirre mountain in the Darien Forest, Panama, 8°10'N 77°30'W. **HT:** 2015/403; **PT:** 2015/404, 2015/405, 2015/406, 2015/407 [FOI744]. **Remarks:** Type species of the genus.
- pantanalense* *Apogonostomum* FOISSNER, 2016 — *Denisia* **35**: 611. **TL:** Floodplain soil of the Paraná River near to the town of Maringá, Pantanal, Brazil, 53°15'W 22°40'S. **HT:** 2015/528; **PT:** 2015/529, 2015/530, 2015/531, 2015/532 [FOI744].
- pelobia* *Mancothrix* FOISSNER, 2016 — *Denisia* **35**: 403. **TL:** Venezuelan site (21), i. e., mud from lithotelmas of the Cataniapo River, 67°36'W 5°36'N. **ST:** 2015/204, 2015/205 [two "holotype" slides labelled]; **PT:** 2015/206 [FOI744]. **Remarks:** Type species of the genus.
- pelobius* *Apometopus* (*Apometopus*) FOISSNER, 2016 — *Denisia* **35**: 869. **TL:** Mangrove swamp in the surroundings of the town of Puerto Plata, Punta Cana, Dominican Republic, 70°40'W 19°45'N. **HT:** 2015/360; **PT:** 2015/361, 2015/362 [FOI744]. **Remarks:** Type species of the genus.
- petzi* *Euplotes* WILBERT & SONG, 2008 — *Journal of Natural History* **42**: 999. **TL:** In benthos samples from rockpools and the littoral zone on the sea coast near Bellinghausen Station, King George Island, Antarctica, 62°13'S 58°58'W. **HT:** 2007/588 [PDF090].
- procera* *Cothurnia* SCHÖDEL, 2018 — *Denisia* **41**: 206. **TL:** Weismain, Schrepfersmühle, Germany. **ST:** 2017/290, 2017/291, 2017/292, 2017/293, 2017/294.
- proctori* *Coriplites* OERTEL, WOLF, AL-RASHEID & FOISSNER, 2008 — *Acta Protozoologica* **47**: 240. **TL:** Tanks of *Achmea paniculigera* (Bromeliaceae) in western Jamaica, i.e., near the road between the villages of Aberdeen and Quci Step (parish St. Elizabeth), E77°42' N18°13'. **HT:** 2010/19; **PT:** 2010/19, 2010/20, 2010/21 [FOI633].
- pulchrum* *Semispathidium* FOISSNER, HESS & AL-RASHEID, 2010 — *European Journal of Protistol-*

- ogy **46**: 67. **TL**: Upper mud and soil layer of a shallow, ephemeral meadow puddle in the surroundings of the former Henkerhaus (house of the hangman) near the centre of the town of Salzburg, Austria, E 13° 02' N 47° 47'. **HT**: 2011/392; **PT**: 2011/393, 2011/394, 2011/395, 2011/396, 2011/397 [FOI630].
- pulvillus Oxytricha* FOISSNER, 2016 — *Denisia* **35**: 704. **TL**: Venezuelan site (65), i. e., highly saline (~ 50‰) soil from an abandoned field in the surroundings of the village of Chichiriviche, north coast of Venezuela, Morrocoy National Park, 67°13'W 11°33'N. **HT**: 2015/628; **PT**: 2015/629, 2015/630, 2015/631, 2015/632, 2015/633 [FOI744].
- pustulata Sleighophrys* FOISSNER, 2005 — *European Journal of Protistology* **41**: 101. **TL**: Slightly saline surface mud and soil from temporary grassland puddles in the surroundings of the village Chichiriviche, Maracay National Park, about 13 km inshore from the north coast of Venezuela, W6713 N1133. **HT**: 2008/125; **PT**: 2008/125, 2008/126, 2008/127 [FOI484]. **Remarks**: Recorded as missing in Table 3 on page 192 by AESCHT (2008).
- quadrinucleata Notohymena* FOISSNER, 2016 — *Denisia* **35**: 722. **TL**: Site (71), i. e., soil under a Pandanus palm in Santa Cruz Island, Galápagos, 0°37'S 90°21'W. **HT**: 2015/648; **PT**: 2015/649, 2015/650 [FOI744].
- quadrinucleata Paroxytricha* FOISSNER, 2016 — *Denisia* **35**: 735. **TL**: In tanks of *Tillandsia heterophylla* (Bromeliaceae) from a cloud mountain forest (1460 m above sea level) in Mexico, Veracruz province, surroundings of the town of Jalapa (Xalapa), 19°32'51"N 96°57'36"W. **HT**: 2015/621; **PT**: 2015/622, 2015/623, 2015/624, 2015/625 (all labelled as *P. pustulata*) [FOI744]. **Remarks**: Type species of the genus.
- quadristicha Bromeliophrya* FOISSNER & STOECK, 2013 — *Journal of Eukaryotic Microbiology* **60**: 232. **TL**: Tank bromeliads on the northern slope of the Blue Mountains, Jamaica, Silver Hill village, 18°12'N 76°40'W. **PT**: 2015/744 [further slides listed in the paper have yet not deposited] [FOI718].
- salinaria Apowoodruffia* FOISSNER, 2016 — *Denisia* **35**: 369. **TL**: Venezuelan site (65), i. e., highly saline soil from the north coast of Venezuela, Morrocoy National Park, surroundings of the village of Chichiriviche, 67°13'W 11°33'N. **HT**: 2015/232; **PT**: 2015/233, 2015/234, 2015/236, 2015/237, 2015/238 [FOI744]. **Remarks**: Type species of the genus.
- salinarum Gonostomum* FOISSNER, 2016 — *Denisia* **35**: 658. **TL**: Highly saline (> 30‰, pH 8) coastal soil from the Great Salt Lake in the surroundings of the town of Brigham, Utah, USA, 112°5'W 44°N. **HT**: 2015/548; **PT**: 2015/549, 2015/550, 2015/551, 2015/552 [FOI744].
- salinarum Protospathidium* FOISSNER, 2016 — *Denisia* **35**: 187. **TL**: Venezuelan site (66), i. e., highly saline soil from the north coast, Morrocoy National Park, surroundings of the village of Chichiriviche, 67°13'W 11°33'N. **HT**: 2015/79; **PT**: 2015/80, 2015/81, 2015/82 [FOI744].
- salinarum Schmidingerothrix* FOISSNER, FILKER & STOECK, 2014 — *Journal of Eukaryotic Microbiology* **61**: 73. **TL**: Solar saltern in the Ria Formosa National Park near to the town of Faro, Portugal, N37°0'29.4851" W7°57'41.0684". **HT**: 2015/697; **PT**: 2015/698, 2015/699, 2015/700, 2015/701 [FOI723].
- schmidingeri Apobryophyllum* FOISSNER & AL-RASHEID, 2007 — *Acta Protozoologica* **46**: 211. **TL**: Litter and surface soil of a spruce-fir-beech forest (Neuwald) in Styria, Austria, 47°46'N 15°32'E. **HT**: 2008/109; **PT**: 2008/110, 2008/111, 2008/112, 2008/113, 2008/114, 2008/115 [FOI574].
- semiarmatus Dileptus* VĎAČNÝ & FOISSNER, 2008 — *Acta Protozoologica* **47**: 217. **TL**: Soil from a beech forest in the surroundings (Neuhaus area) of the town of Salzburg, Austria, E13° N47°. **HT**: 2011/264; **PT**: 2011/265, 2011/266, 2011/267, 2011/268, 2011/269, 2011/270, 2011/271 [FOI654]. **Remarks**: Currently *Microdileptus s. sh.* VĎAČNÝ & FOISSNER 2012 — *Denisia* **31**: 257 [FOI657].
- silvicola Caudiholosticha* FOISSNER, 2016 — *Denisia* **35**: 531. **TL**: Needle litter and soil from a spruce forest in the surroundings of the town of



- Ulm, Germany, 10°E 48°23'N. **HT:** 2015/484; **PT:** 2015/485, 2015/486, 2015/487, 2015/488 [FOI744].
- simplex Orbopercularia* SCHÖDEL, 2018 — Denisia **41:** 217. **TL:** Dreierzensee Reichmannsdorf, Germany. **ST:** 2017/298, 2017/299, 2017/300, 2017/301, 2017/302.
- spetai Urotricha* FOISSNER, 2012 — Verhandlungen der Zoologisch-Botanischen Gesellschaft in Österreich **148/149:** 174. **TL:** Plankton of a fishpond in the Austrian Central Alps, Rauris area, Seidlwinkel valley, Austria, 47°9' 9.60"N/12°53'27.86"E, 1293 m above sea level. **HT:** 2012/18; **PT:** 2012/19, 2012/20, 2012/21, 2012/22, 2012/23, 2012/24, 2012/25 [FOI656].
- sphagnicola Dileptus* VĎAČNÝ & FOISSNER, 2012 — Denisia **31:** 269. **TL:** Simmelried mire near the village of Hegne, surroundings of the town of Constance, Germany, E09°05' N47°42'. **HT:** 2011/301; **PT:** 2011/302, 2011/303, 2011/304, 2011/305, 2011/306, 2011/307, 2011/308, 2011/309, 2011/310, 2011/311, 2011/312, 2011/313, 2011/314, 2011/315, 2011/316, 2011/317, 2011/318 [FOI657].
- spinosa Pseudoplatyophrya* FOISSNER, 2016 — Denisia **35:** 311. **TL:** Litter and soil from the rain forest around the Ariau Lodge on the Anavilhanas archipelago about 40 km west of the town of Manaus, Brazil, 6°W 4°S. **HT:** 2015/168; **PT:** 2015/169, 2015/170, 2015/171 [first three labelled as "*P. amazonica*" on a supplementary protocoll] [FOI744].
- stetteri Spathidium* FOISSNER, 2016 — Denisia **35:** 194. **TL:** Site (71), i. e., surface soil under a *Pandanus* palm in the garden of the hotel San Fernando, Puerto Ayora, Santa Cruz Island, Galápagos, 0°37'S 90°21'W. **HT:** 2015/60; **PT:** 2015/61, 2015/62 [FOI744].
- striatum Carchesium* SCHÖDEL, 2018 — Denisia **41:** 200. **TL:** Dreierzensee Reichmannsdorf, Germany. **ST:** 2017/277, 2017/278, 2017/279, 2017/280.
- succisa Psilotricha* (O. F. MÜLLER, 1786) FOISSNER, 1983 — COTTERILL, AUGUSTIN, MEDICUS & FOISSNER, 2014 — Diversity, Basel. **5(2):** 379. **Neotype locality:** The Krauthügel pond is at the southern foot of the fortress of Hohensalzburg, i.e., near the center of the town of Salzburg, Austria, E13°02'40.3" N47°47'30.7", 429.7 m above the Adriatic Sea. **NT:** 2013/20, 2013/21, 2013/22, 2013/23, 2013/24 [FOI696].
- tachyblastum Trachelophyllum* STOKES 1884 — FOISSNER, 2016 — Denisia **35:** 93. **Neotype locality:** Leaf litter and soil from the Fern Creek, Muir National Park, San Francisco, USA, W122°5' N37°5'. **NT:** 2015/161, 2015/162, 2015/163, 2015/164 [FOI744].
- terricola Birojimia* BERGER & FOISSNER, 1989 — Bulletin of the British Museum (Natural History). Zoology series 55. **TL:** Biro-Jima, Amakusa, Kumamoto Prefecture, Japanese type population. **PT:** 2015/471, 2015/472 [FOI210]. **Remarks:** Listed in FOISSNER (2016 [FOI744: 516]), the holotype is in the Natural History Museum in London.
- terricola Cataphractes* FOISSNER, 2016 — Denisia **35:** 130. **TL:** Highly fertile Mahadja soil from Venezuelan site (25), about 50 km north of Puerto Ayacucho, 67°36'W 5°41'N. **HT:** 2015/475; **PT:** 2015/144, 2015/145, 2015/476, 2015/478 [FOI744].
- terricola Cinetochilides* FOISSNER, 2016 — Denisia **35:** 430. **TL:** Galápagos site (68), i. e., saline soil (~ 30‰) from the surroundings of the village of Puerto Villamil, south coast of Isabela Island, 0°57'S 90°57'W. **HT:** 2015/172; **PT:** 2015/173, 2015/327, 2015/328, 2015/329, 2015/330 [FOI744]. **Remarks:** Type species of the genus.
- terricola Emarginatophrya* FOISSNER, 2016 — Denisia **35:** 287. **TL:** Venezuelan site (56), i. e., mud and soil from temporary grassland puddles in the surroundings of the village of Chichiriviche, Morrocoy National Park, 67°13'W 11°33'N. **HT:** 2015/201; **PT:** 2015/202, 2015/203 [FOI744]. **Remarks:** Type species of the genus.
- terricola Kuehneltiella* FOISSNER, 1990 — Biology and fertility of soils **9:** 112. **TL:** Upper soil layer of an arid hummock grassland near Alice Springs, Northern Territory, Australia, 133°E, 24°S. **HT:** 2008/148; **PT:** 2008/148, 2008/149, 2008/150, 2008/151, 2008/152, 2008/153, 2008/154, 2008/155, 2008/156, 2008/157, 2008/158, 2008/159, 2008/160, 2008/161, 2008/162, 2008/163 [FOI225]. **Remarks:** Recorded as missing in Table 3 on page 191 by AESCHT (2008).

- terricola Platynematum* FOISSNER, 2016 — *Denisia* **35**: 441. **TL**: Soil surrounding roots of bulbs from Prospero, Antalya, Cakilli Gecidi, about 11 km SE of the town of Cevizli, 1200 NN, Anatolia, Turkey, 31°45'E 37°45'N. **HT**: 2015/335; **PT**: 2015/336, 2015/337 [FOI744].
- terricola Sandmanniella* FOISSNER & STOECK, 2009 — *Journal of Eukaryotic Microbiology* **56**: 482. **TL**: Soil from the Chobe River, Kabolebole Peninsula, Botswana, southern Africa, 17°50'E 25°S. **ST**: 2010/96, 2010/99; **PT**: 2010/100, 2010/101, 2010/91, 2010/92, 2010/96, 2010/97, 2010/98, 2010/99 [FOI624]. **Remarks**: Type species of the genus.
- terricola lanceoplites Enchelys* FOISSNER, 2016 — *Denisia* **35**: 246. **TL**: Litter and soil from a forest on the Robinson Crusoe Island, 82°W 34°S. **HT**: 2015/127; **PT**: 2015/128, 2015/129, 2015/130, 2015/131 [FOI744].
- tibetensis Fuscheriides* FOISSNER & GABILONDO in GABILONDO & FOISSNER, 2009 — *Acta Protozoologica* **48**: 2. **TL**: Grassland soil from the surroundings of Lake Paiku-Tso, South Tibet, E85°45' N28°45', about 4600 m above sea-level. **HT**: 2010/41; **PT**: 2010/42, 2010/43, 2010/44, 2010/45 (as *Fuscheria t.*) [FOI634]. **Remarks**: Type species of the genus.
- tirjakovae Dileptus* VĎAČNÝ & FOISSNER, 2008 — *Journal of Eukaryotic Microbiology* **55**: 437. **TL**: Highly saline coastal soil from the bay of Nauplia, Greece, E 22°43'N 37°33'. **HT**: 2011/336; **PT**: 2011/337, 2011/338, 2011/339, 2011/340, 2011/341, 2011/342, 2011/343 [FOI622]. **Remarks**: (currently *Rimaleptus t.* cp. VĎAČNÝ & FOISSNER 2012 — *Denisia* **31**: 228)
- tumida Enchelys* FOISSNER, 2016 — *Denisia* **35**: 251. **TL**: Mould litter and humous soil (pH 6.0) under a Casuarina (Beef-wood) tree between the town of Eridunda and the Ayers Rock, Australia, about 27° S 132°E. **HT**: 2015/125; **PT**: 2015/126 [FOI744].
- tumidus Coriplites* FOISSNER, 2016 — *Denisia* **35**: 179. **TL**: Needle litter and red surface soil (pH 6) from a small mountain in the outskirts of the town of Alice Springs, Australia, 133°E 24°S. **HT**: 2015/37; **PT**: 2015/38, 2015/39, 2015/40, 2015/41 [FOI744].
- ulurensis Fuscheria* FOISSNER & GABILONDO in GABILONDO & FOISSNER, 2009 — *Acta Protozoologica* **48**: 10. **TL**: Mud and aeolic soil from pools on top of Ayers rock, Uluru-Kata Tjuta National Park, Australia, 863 m above sea-level, E131°02'10" S25°20'42". **HT**: 2010/31; **PT**: 2010/32, 2010/33, 2010/34, 2010/35, 2010/36, 2010/37, 2010/38, 2010/39, 2010/40 [FOI634].
- utriculariae Tetrahymena* PITSCH, ADAMEC, DIRREN, NITSCHKE, ŠIMEK, SIROVÁ & POSCH, 2016 — *Journal of Eukaryotic Microbiology* **64**(43): 333. **TL**: Inside carnivorous traps of the submerged aquatic plants *Utricularia reflexa* [from] Okavango Swamp north from Maun in Botswana (for some uncertainties see discussion in that paper). **HT**: 2016/116; **PT**: 2016/117, 2016/118 [ZR0213].
- variabilis Larvulina* PENARD, 1922 — BOURLAND, 2009 — *European Journal of Protistology* **45**(3): 221. **Neotype locality**: Eutrophic freshwater pond near Camelsback Park in the town of Boise, Idaho, USA (43°38'12.28"N; 116°11'55.01"W, elevation 847m). **NT**: 2009/1 [as *L. elegans*; eight slides mislabelled as paratype] [E00134].[CI184].2
- vasiformis Epistylis* SCHÖDEL, 2018 — *Denisia* **41**: 197. **TL**: Harbach, Hetzles, Germany. **ST**: 2017/286, 2017/287, 2017/288, 2017/289.
- venezuelensis Australothrix* FOISSNER, 2016 — *Denisia* **35**: 497. **TL**: Venezuelan site (32), i. e., soil under a carpet of Velloziacean plants in a Laja between the Agricultural Research Station and the airport of Puerto Ayacucho, 67°36'W 5°41'N. **HT**: 2015/450; **PT**: 2015/451, 2015/452, 2015/453 [FOI744].
- venezuelensis Idiodeviata* FOISSNER, 2016 — *Denisia* **35**: 579. **TL**: Venezuelan site (65), i. e., highly saline soil from the north coast, Morrocoy NP, surroundings of the village of Chichiriviche, 67°13'W 11°33'N. **HT**: 2015/444; **PT**: 2015/445, 2015/446, 2015/447, 2015/448, 2015/449 [FOI744]. **Remarks**: Type species of the genus.
- venezuelensis Renoplites* FOISSNER, 2016 — *Denisia* **35**: 255. **TL**: Venezuelan site (25), i. e., highly fertile field (Mahadja) soil from the surroundings of the village of El Sapo, about 50 km north of Puerto Ayacucho, 67°36'W 5°41'N. **HT**: 2015/83; **PT**:

- 2015/84, 2015/85, 2015/86, 2015/87 [FOI744].  
**Remarks:** Type species of the genus.
- venezuelensis Sagittaria* FOISSNER, 2016 — *Denisia* **35**: 380. **TL:** Venezuelan sample (65), i.e., highly saline soil from the north coast of the Morrocoy National Park, surroundings of the village of Chichiriviche, 67°13'W 11°33'N. **HT:** 2015/225; **PT:** 2015/226, 2015/227, 2015/228, 2015/229, 2015/230, 2015/231 [FOI744].
- venezuelensis Sandmannides* FOISSNER, 2016 — *Denisia* **35**: 341. **TL:** Venezuelan site (23), i. e., field (Mahadja) soil from the surroundings of the village of El Sapo and the Orinoco River, that is, about 50 km north of Pto. Ayachuco, Venezuela 67°36'W 5°41'N. **HT:** 2015/617 [FOI744]. **Remarks:** Type species of the genus.
- virginensis Caudiholosticha* FOISSNER, 2016 — *Denisia* **35**: 535. **TL:** Soil surface litter and decaying wood from a fallen tree in the rain forest along the Mahagani River Road, Saint Croix, Virgin Islands, 65°W 18°N. **HT:** 2015/489; **PT:** 2015/490, 2015/491, 2015/492, 2015/493 [FOI744].
- vleiacola Apogonostomum* FOISSNER, 2016 — *Denisia* **35**: 616. **TL:** Soil from the margin of the Sirkelsvlei, Cape of Good Hope Nature Reserve, Republic of South Africa, 33°53'S 18°25'E. **HT:** 2015/533; **PT:** 2015/534, 2015/535 [FOI744].
- virginensis Caudiholosticha* FOISSNER, 2016 — *Denisia* **35**: 535. **TL:** Soil surface litter and decaying wood from a fallen tree in the rain forest along the Mahagani River Road, Saint Croix, Virgin Islands, 65°W 18°N. **HT:** 2015/489; **PT:** 2015/490–493 [FOI744].
- vleiacola Apogonostomum* FOISSNER, 2016 — *Denisia* **35**: 616. **TL:** Soil from the margin of the Sirkelsvlei, Cape of Good Hope Nature Reserve, Republic of South Africa, 33°53'S 18°25'E. **HT:** 2015/533; **PT:** 2015/534–535 [FOI744].
- willii Uroleptus* SONNTAG, STRÜDER-KYPKE & SUMMERER, 2008 — *Denisia* **23**: 281. **TL:** Pelagial of Piburgersee, Austria (47°11'N, 10°53'E). **HT:** 2008/179; **PT:** 2008/179, 2008/180, 2008/181, 2008/182, 2008/183, 2008/184, 2008/185, 2008/186, 2008/187, 2008/188, 2008/189, 2008/190, 2008/191, 2008/192, 2008/193, 2008/194 [CI1879].
- wolffi Enchelariophrya* FOISSNER, 2016 — *Denisia* **35**: 231. **TL:** Humous surface soil (0–5 cm) from an *Aechmea paniculigera* (Bromeliaceae) site in the surroundings of the village of Quick Step in Cockpit Country, Jamaica, 77°41'W 18°17'N. **HT:** 2015/51; **PT:** 2015/52, 2015/53, 2015/54, 2015/55 [FOI744]. **Remarks:** Type species of the genus.

## Diverse protists

*archimandrita Nephridiophaga* RADEK, WELLMANN & WOLF 2011 — *Parasitology Research* **109** (2): 481. **Type host:** the peppered roach, *Archimandrita tessellata*. **Type host locality:** Central and South America, e.g., Guatemala, Costa Rica, Panama, and Colombia. **HPT:** 2010/177 (Giemsa-stained smear), 2010/178 (paraffin sections stained with hemalaun-eosin) [PR1285].

*arenicolus Gymnodinium* DRAGESCO, 1965 — *Cahiers de Biologie Marine* **6**: 109 [not seen]. **ST:** 2006/51, 2006/52, 2006/53 [PR1107].

*asini Lecythium* DUMACK, BAUMANN & BONKOWSKI, 2016 — *Protist* **167**(5): 452. **TL:** Big puddle in a donkey paddock of a deer park in Dormagen, Germany, N 51.081443, E 6.788283. **HPT:** 2015/778 [as *L. asinus*] [PR1290]. **Remarks:** Currently *Fisculla asini* cp. DUMACK, MAUSBACH, HEGMANN & BONKOWSKI, 2017 [PR1291].

*balthica Codosiga* WYLEZICH & KARPOV in WYLEZICH, KARPOV, MYLNIKOV, ANDERSON & JÜRGENS, 2012 — *BMC Microbiol.* **12/271**: 4. **TL:** Gotland Deep (central Baltic Sea, IOW station 271, 57°19'N, 20°10'E) suboxic to anoxic water masses (depth 206 m), brackish (8–25‰). **HPT:** 2012/121 [PR1230].

*bombi Crithidia* LIPA & TRIGGIANI 1988 – SCHMID-HEMPFEL & TOGNAZZO 2010 — *Journal of Eukaryotic Microbiology* **57**: 341. **Neotype locality:** Movelier, Chile. **NT:** 2010/4, 2010/5, 2010/6 [PR1233].

*carinae Kraken* DUMACK, SCHUSTER, BASS & BONKOWSKI, 2016 — *Protist* **167**(3): 273. **TL:** Surface soil, agricultural field in northern Germany, N53°22'22.8" E13°48'01.6". **HPT:** 2015/26 [PR1282].

- expoecki Crithidia* SCHMID-HEMPEL & TOGNAZZO, 2010 — *Journal of Eukaryotic Microbiology* **57**: 342. **HPT**: 2010/1, 2010/2, 2010/3 [PR1233].
- falculifera Acarispora* RADEK & ALBERTI in RADEK, KARITON, DABERT & ALBERTI, 2015 — *Acta Parasitologica* **60**(2): 209. **Type host**: The pigeon feather mite *Falculifer rostratus* BUCHHOLZ, 1869 (Astigmata, Falculiferidae) collected from the domestic pigeon *Columba livia* f. *domestica*. **Type host locality**: Near Greifswald, Germany. **HPT**: 2014/24 [ultrathin section labeled as *Yamania falculifera* RADEK & ALBERTI] [PR1289].
- glossotermis Heliconympha* RADEK, MEUSER, STRASSET, ARSLAN, TESSMER, ŠOBOTNÍK, SIL-LAM-DUSSÈS, NINK & BRUNE, 2018 — *Journal of Eukaryotic Microbiology* **65**: 90. **Type host**: The hindgut of *Glossotermes oculatus* EMERSON, 1950. **Type host locality**: The termites were collected near the Petit-Saut Dam south of Sinnamary (5.0662°N, 53.0460°W) and in the Nouragues Natural Reserve (4.0717°N, 52.7325°W) in French Guiana. **HPT**: 2017/1 [PR1284].
- jennyae Lecythium* MAUSBACH, DUMACK & BONKOWSKI in DUMACK, MAUSBACH, HEGMANN & BONKOWSKI, 2017 — *Protist* **167**(3): 305. **TL**: Urban pond in a park at Cologne-Mühlheim, Germany; 50.958675, 7.005476. **HPT**: 2016/121 [Illustrations of type generating strain: Figures 6, 7] [PR1291].
- longiflagellatus Opisthomitus* RADEK, STRASSET, KRUEGER, MEUSER, SCHEFFRAHN & BRUNE, 2014 — *Protist* **165**(3): 395. **Type host**: The hindgut of *Neotermes jouteli* BANKS. **Type host locality**: USA, Florida, Fort Lauderdale Airport, latitude 26.06997, longitude 80.16347. **HPT**: 2014/2 [PR1286].
- lucihormetica Nephridiophaga* RADEK, WELLMANN & WOLF, 2011 — *Parasitology Research* **109** (2): 481. **Type host**: The cockroach *Lucihormetica verrucosa*. **Type host locality**: Venezuela and Colombia. **HPT**: 2010/179; 2010/180 (Giemsa-stained smears, labelled as *N. lucihormeticae*). **Note**: [PR1285].
- maderae Nephridiophaga* RADEK, RADEK, OWERFELDT, GISDER & WURZBACHER in RADEK, WURZBACHER, GISDER, NILSSON, OWERFELDT, GENSCH, KIRK & VOIGT, 2017 — *MycoKeys* **25**: 37. **Type host locality**: Culture [from Madeira cockroach *Leucophaea (Rhyparobia) maderae*] at the Federal Environment Agency (UBA), Berlin, Germany. Naturally occurring in tropical regions world-wide. **HPT**: 2014/58, 2014/59 [PR1283].
- margaritae Lecythium* DUMACK, BAUMANN & BONKOWSKI, 2016 — *Protist* **167**(3): 452. **TL**: Bank of the river Rhine in Cologne, shallow river sediment; sand and pebbles <3 cm, Germany; N 50.979543, E 6.990030. **HPT**: 2015/775 [PR1290] **Remarks**: Currently *Fisculla m.* by DUMACK, MAUSBACH, HEGMANN & BONKOWSKI, 2017 — *Protist* **168**(3): 306 [PR1291].
- minima Codosiga* WYLEZICH & KARPOV in WYLEZICH, KARPOV, MYLNIKOV, ANDERSON & JÜRGENS, 2012 — *BMC Microbiol.* **12/271**: 5. **TL**: Gotland Deep and Landsort Deep (central Baltic Sea, IOW station 284, 58°35'N, 18°14'E) suboxic to anoxic water body, facultative anaerobic, brackish (8–16‰). **HPT**: 2012/120 [PR1230].
- memoris Lecythium* BAUMANN, DUMACK & BONKOWSKI in DUMACK, BAUMANN & BONKOWSKI, 2016 — *Protist* **167**(3): 449. **TL**: Patch of moss growing on a withering tree stump in a deciduous forest, Germany; 50.861914N 7.195836E. **HPT**: 2015/776 [PR1290]. **Remarks**: Currently *Fisculla memoris* by DUMACK, MAUSBACH, HEGMANN & BONKOWSKI, 2017 — *Protist* **168**(3): 306 [PR1291].
- pallida Dracomyxa* WYLEZICH, KAUFMANN, MARCUSE & HÜLSMANN, 2014 — *Protist* **165**(6): 866. **TL**: Flooded clayor gravel pits of submersed leafs of the common reed *Phragmites australis* in Lake Mahlow (52°21'58"N, 13°22'42"E), Blankenfelde-Mahlow near Berlin, Brandenburg, Germany. **HPT**: 2006/91 [in-situ-fixed, glutardialdehyde-osmium-preserved and whole-mounted in resin specimens] [PR1292].
- pseudominuta Sphenoderia* CHATELAIN, MEISTERFELD, ROUSSEL & LARA, 2013 — *Protist* **164**(6): 788. **TL**: *Sphagnum* collected at the bank of a drainage ditch close to Fringshaus on the Belgian side of the Venn auf Hochscheid 50°36'59.94"N, 6°13'23.08"E. **ST**: 2014/23 [PR1281].
- siemensmai Lecythium* BAUMANN, DUMACK, & BONKOWSKI, 2016 — *Protist* **167**(5): 450. **TL**:



- small pond of the Institute of Zoology of the University of Cologne in the botanic garden next to the Cologne Biocenter, Cologne, stagnant water (small pond) with waterlilies, Germany; N 50.925411, E 6.936010. **HPT**: 2015/777 [PR1290]. **Remarks**: Currently *Fisculla* s. by DUMACK, MAUSBACH, HEGMANN & BONKOWSKI, 2017 — *Protist* **168**(3): 306 [PR1291].
- terrestris* *Lecythium* DUMACK, MÜLLER & BONKOWSKI, 2016 — *Protist* **167**(5): 97. **TL**: Agricultural research field (V327) of the Leibniz Centre for Agricultural Landscape Research (ZALF) at Müncheberg near Berlin, Germany; N52°31'04.46" E14°07'21.96". **HPT**: 2015/25 [PR1294]. **Remarks**: Currently *Fisculla* t. by DUMACK, MAUSBACH, HEGMANN & BONKOWSKI, 2017 — *Protist* **168**(3): 307 [PR1291].
- thermacidophilus* *Tetramitus* BAUMGARTNER, EBERHARDT, DE JONCKHEERE & STETTER, 2009 — *Journal of Eukaryotic Microbiology* **56** (2): 201. **TL**: Acidic hot springs in the Caldera Uzon (Kamchatka, Russia) and in Pisciarelli Solfatara (Naples, Italy). **HT**: 2002/942; **PT**: 2002/943 [Z08157].
- venatorum* *Babesia* HERWALDT, CACCIO, GHERLINZONI, ASPÖCK, SLEMENDA, PICCALUGA, MARTINELLI, EDELHOFER, HOLLENSTEIN, POLETTI, PAMPIGLIONE, LOSCHENBERGER, TURA, & PIENIAZEK, 2003 — *Emerging Infectious Diseases* **9**: 946. **Type host**: *Ixodes ricinus*. **Type host locality**: Austria. **HPT**: 2007/583 [ASP398]. **Remarks**: Formerly known as *Babesia* sp. EU1 and introduced as provisional species under the “Candidatus” concept of bacterial taxonomy, which does not formally exist now for protozoa. Therefore, the nomenclatural status has to be clarified; it is included here to announce that a permanent slide exists deposited by Horst ASPÖCK in 2007.

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