

***Chaetoscypha palmicola* (P.R. Johnst.) Baral & P.R. Johnst. – AEB 1264 (= PDD 111248)**
Synonym: *Pirottaea palmicola* P.R. Johnst.

Collected: 21 January 2016 on dead nikau palm (*Rhopalostylis sapida*) frond

Collection site: Remutaka Forest Park – Orongorongo Track

Collected and identified by: Dan Mahoney

Voucher materials: Dried herbarium specimen AEB 1264 (= PDD 111248) accompanied by 2 slides (lacto-Fuchsin and Shear's mounting fluid (SMF)/aniline blue lactic acid); in situ photos of fresh apothecia under the Zeiss dissecting scope and digital photos of microscopic detail in slide mts; Dan's brief description & comments.

Other AEB collection: *Chaetoscypha palmicola* (syn. *Pirottaea palmicola*) – AEB 1111 (= PDD 102712)

Dan's brief description: **Apothecia** fresh < 500 µm in diam. (appearing sessile from above but having a short central stalk in side view), on moist blade portion of a fallen, dead, decaying nikau palm frond, numerous, separate, in all stages of maturity, ectal excipulum covered with long brown/black setae, hymenium white. **Setae** rigid 100–150+ X 5 µm (width at widest point), smooth, septate, dark brown under transmitted light, somewhat curving [narrow and lighter basally, 2.5–3 µm, then increasing gradually to 5 µm wide approx. one-quarter up the total length (often bent below this point) and from there gradually tapering to a point apically]. **Ectal excipulum** of brown textura prismatica with cells in rows that extend upwards from the short whitish apothecial stalk toward the rim of the apothecium. **Medullary excipulum** of textura intricata. **Paraphyses** numerous, cylindrical, simple, smooth, hyaline, becoming slightly wider at and near the rounded apex, slightly longer than the asci. **Asci** cylindrically clavate, with a short stipe and darkened apex through which a narrow J+ channel can be seen (this very faint in Melzer's but more prominent when first mounted in NaOH and then transferred to Melzer's), 8-spored with spores arranged uniseriately overlapping to irregularly biseriate, the few asci measured were 65–73 µm long. **Ascospores** smooth, hyaline, often with 2 prominent polar vacuoles, slightly broader in the upper half, usually appearing one-celled but those with a possible faint central to slightly off-center septum (?) also seen, 8.5–10 X 2.5–3 µm (n=20).

Comments: Agreeing essentially with Peter Johnston's original description although the occasional seemingly septate (?) ascospore was seen. Also, without mounting first in NaOH, the bluing reaction of the ascus ring in Melzer's alone was very faint. I didn't have any KOH on hand so I used NaOH.

From PDD online

Pirottaea palmicola P.R. Johnst.

Article: [Johnston, P.R. \(1998\). Four new *Pirottaea* species from New Zealand. *New Zealand Journal of Botany* 36\(4\): 645-652 \(<http://www.rsnz.org/publish/abstracts.php>\).](http://www.rsnz.org/publish/abstracts.php)

Article type: Protologue (NZ)

Description:

Apothecia developing on partly decomposed, fallen fronds of *Rhopalostylis sapida* (Arecaceae). Apothecia 0.5-0.8 mm diam., cup-shaped, more or less urceolate when immature and when dried, substipitate, the receptacle pale brown to brown, with numerous black, stiff setae. Hymenium white when fresh, drying pale yellow.

Ectal excipulum 30-40 µm thick on sides of receptacle in vertical section, comprising 3 or 4 rows of globose cells 8-15 µm diam., with thin, brown walls. Excipular cells at margin of disc extend into hair-like elements 2-4 µm diam., with thin, brown to pale brown walls. Setae arising from cells of excipulum on sides of receptacle, and from amongst hair-like elements at margin of disc. Setae (80-)100-200 x 5-6 µm, with thick, dark brown, smooth walls, cylindric, tapering near apex to more or less acute tip, 3 or 4-septate, although septa often difficult to see. Medullary excipulum 15-20 µm wide at sides of receptacle, comprising cylindric cells 2-4 µm diam., with hyaline, thickened, slightly gelatinised walls. Medullary cells more or less parallel at sides of receptacle, forming textura intricata near base of receptacle and within stipe. Medullary layer dextrinoid in Melter's reagent. Paraphyses 2 µm diam., cylindric, undifferentiated at apex, about same length as the asci. Asci 55-70(-75) x 6-7 µm, more or less cylindric, apex rounded to subtruncate, wall thickened at apex with small, intensely amyloid ring, 8-spored. Ascospores 8.5-9.5 x 2.5-3 µm, oblong, straight, ends rounded, 0-septate, hyaline.

Cultures approximately 70 mm diam. after 4 weeks on both OA and CMD. Growth thin, with sparse, cottony, white aerial mycelium. Irregular patches of purplish pigment evident in some cultures on OA. Cultures remained sterile.

Type: New Zealand: AUCKLAND: Hunua Ranges, Kawakawa Bay, Morehu Reserve, on fallen fronds of *Rhopalostylis sapida*, P.R. Johnston D792, 19 Mar 1992 (PDD 60012, ICMP 13383).

Collections examined: ADDITIONAL SPECIMENS EXAMINED: New Zealand: NORTHLAND: Russell Forest, Punaruku Rd, P.R. Johnston D809, 15 Apr 1992 (PDD 60281, ICMP 13384); Russell Forest, Ngaiotonga Track, P.R. Johnston D810, 15 Apr 1992 (PDD 60282, ICMP 13385); Whangarei, Tangihua Forest, Rope Walk, P.R. Johnston D827, 23 May 1992 (PDD 60277, ICMP 13386). AUCKLAND: Waitakere Ranges, Rangemore Track, P.R. Johnston D791, 17 Mar 1992 (PDD 60013, ICMP 13552); Hunua Ranges, Cossey-Wairoa Track, 1996 *Fungal Foray*, 9 May 1996 (PDD 65971, ICMP 13553).

Notes:

ETYMOLOGY: refers to the host substrate.

NOTES: *P. palmicola* is morphologically similar to *P. horoeka*, but is distinguished by its very long, more or less straight setae as well as by host substrate. Although known from relatively few collections, this fungus appears to be common on fallen fronds of *Rhopalostylis* and probably occurs throughout the range of its host.

Publications consulted:

1) Johnston P.R. 1998. Four new *Pirottaea* species from New Zealand. *New Zealand Journal of Botany* 36(4): 645–652.

Abstract: *Pirottaea falcata*, *P. horoeka*, *P. mahinapua*, and *P. palmicola* spp. nov. are described from New Zealand.

2) Johnston P.R. 2002. *Chaetoscypha* Syd. reassessed. *New Zealand Journal of Botany* 40(4): 697–699.

Abstract: This note proposes the recombination of *Chaetoscypha nidulans* in *Pirottaea*, and places *Pirottaea falcata* in synonymy with that species. As *C. nidulans* is the type species of *Chaetoscypha* Syd. 1924, this genus is now a synonym of *Pirottaea* Sacc. 1878.

3) McKenzie E.H.C., Buchanan P.K. & Johnston P.R. 2004. Checklist of fungi on nikau palm (*Rhopalostylis sapida* and *R. baueri* var. *cheesemani*), in New Zealand, *New Zealand Journal of Botany* 42(2): 335–355.

McKenzie et al.—Checklist of fungi on nikau palm p. 337. **Table 1** Fungi described from New Zealand with *Rhopalostylis* as the type substratum.

Ascomycota

Arachnopeziza rhopalostylidis Dennis, *Kew Bull.* 15: 302, 1961 (now *Lachnellula rhopalostylidis*)

Nectria pseudoflavoviridis Lowen & Samuels, *Mycol. Pap.* 164: 36, 1991 (now *Cosmospora pseudoflavoviridis*)

Oxydothis rhopalostylis Samuels & Rossman, *Mycotaxon* 28: 469, 1987 (now *O. opaca*)

Oxydothis selenosporellae Samuels & Rossman, *Mycotaxon* 28: 467, 1987; *Pirottaea palmicola* P.R.Johnst., *NZ J. Bot.* 36: 650, 1998; *Rosellinia rhopalostillicola* L.E.Petrini, *NZ J. Bot.* 41: 122, 2003; *Rosellinia palmae* L.E.Petrini, *NZ J. Bot.* 41: 116, 2003; *Stictis ramuligera* var. *minor* P.R.Johnst., *NZ J. Bot.* 21: 268, 1983

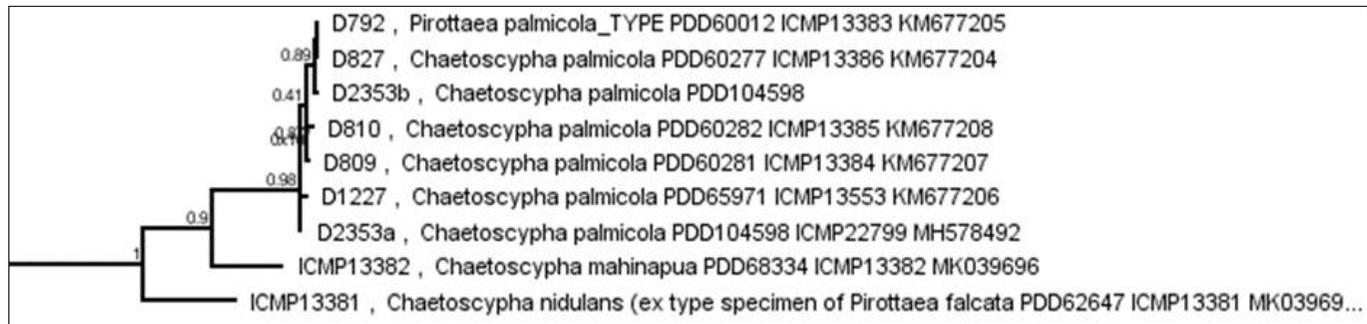
4) Baral H-O. 2016. Inoperculate discomycetes (Leotiomyces). pp 157–205. In: Jaklitsch W, Baral HO, Lücking R, Lumbsch HT, Frey W (eds) *Syllabus of plant families: A. Engler's syllabus der Pflanzenfamilien part 1/2*. Borntraeger, Stuttgart, p 322. [especially Family Helotiaceae, p. 169 “? *Chaetoscypha* Syd. (4)”].

5a) Peter R. Johnston, Luis Quijada, Christopher A. Smith, Hans-Otto Baral, Tsuyoshi Hosoya, Christiane Baschien, Kadri Pärtel, Wen-Ying Zhuang, Danny Haelewaters, Duckchul Park, Steffen Carl, Francesc López-Giráldez, Zheng Wang and Jeffrey P. Townsend. 2019. A multigene phylogeny toward a new phylogenetic classification of Leotiomyces. *IMA Fungus* 10:1. **Page 11 of 22:**

“The type species of the New Zealand endemic genus *Chaetoscypha* was recombined by Johnston (2002) as *Pirottaea nidulans*. Baral (2016) noted that morphologically *P. nidulans* has an ascus apical ring typical of Helotiaceae rather than Ploettnerulaceae, the family he accepted for *Pirottaea*. Sequences from a morphologically similar fungus from New Zealand, *Pirottaea palmicola*, support the Baral (2016) interpretation of these New Zealand “*Pirottaea*” species as Helotiaceae.”

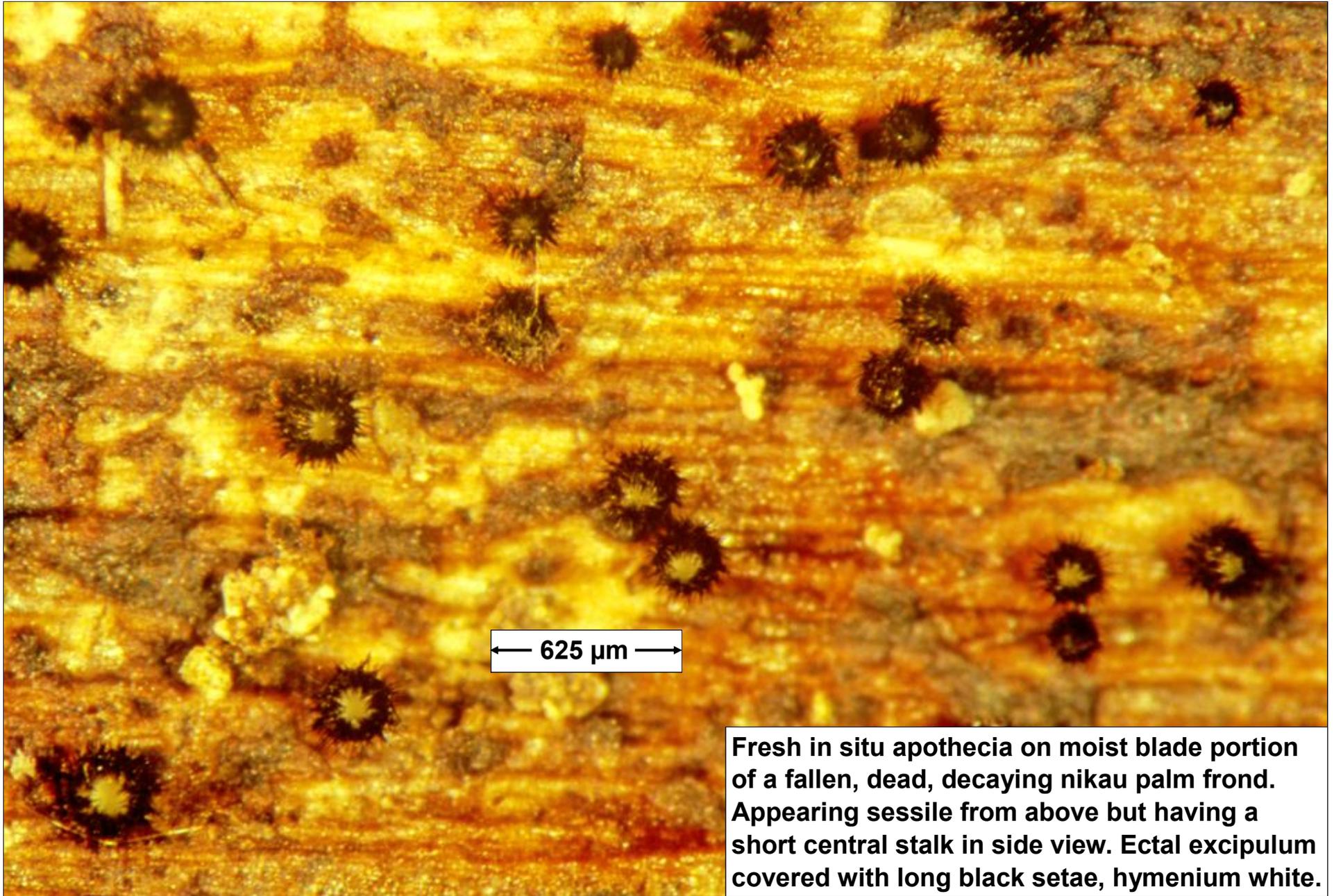
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5b) (kindly contributed by Peter Johnston) Although only *C. palmicola* is in Johnston et al. (2019, as '*Pirottaea palmicola*'), later ITS sequencing shows *C. palmicola* to be a well-resolved monophyletic clade with the type of *Chaetoscypha*, *C. nidulans* (*Pirottaea falcata* is a synonym of *C. nidulans*, see <https://nzfungi2.landcareresearch.co.nz/default.aspx?selected=NameDetails&NameId=1CB1B02A-36B9-11D5-9548-00D0592D548C&StateId=&Sort=0&TabNum=0>).

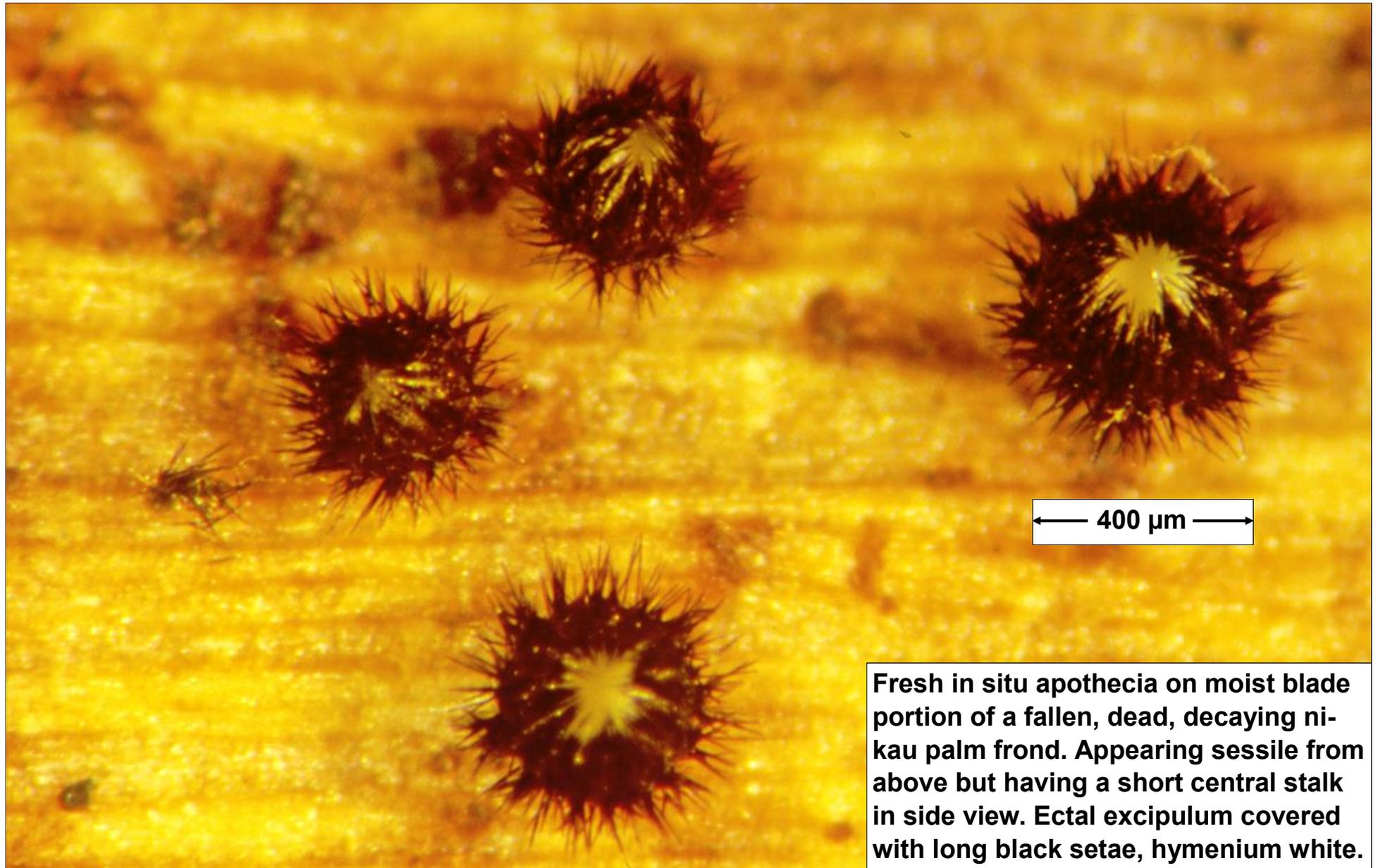


6) Baral, H-O. 2020. Nomenclatural novelties. Index Fungorum. 428:1-2. (formalizes name changes for *Chaetoscypha horoeke*, *C. mahinapua*, and *C. palmicola*).

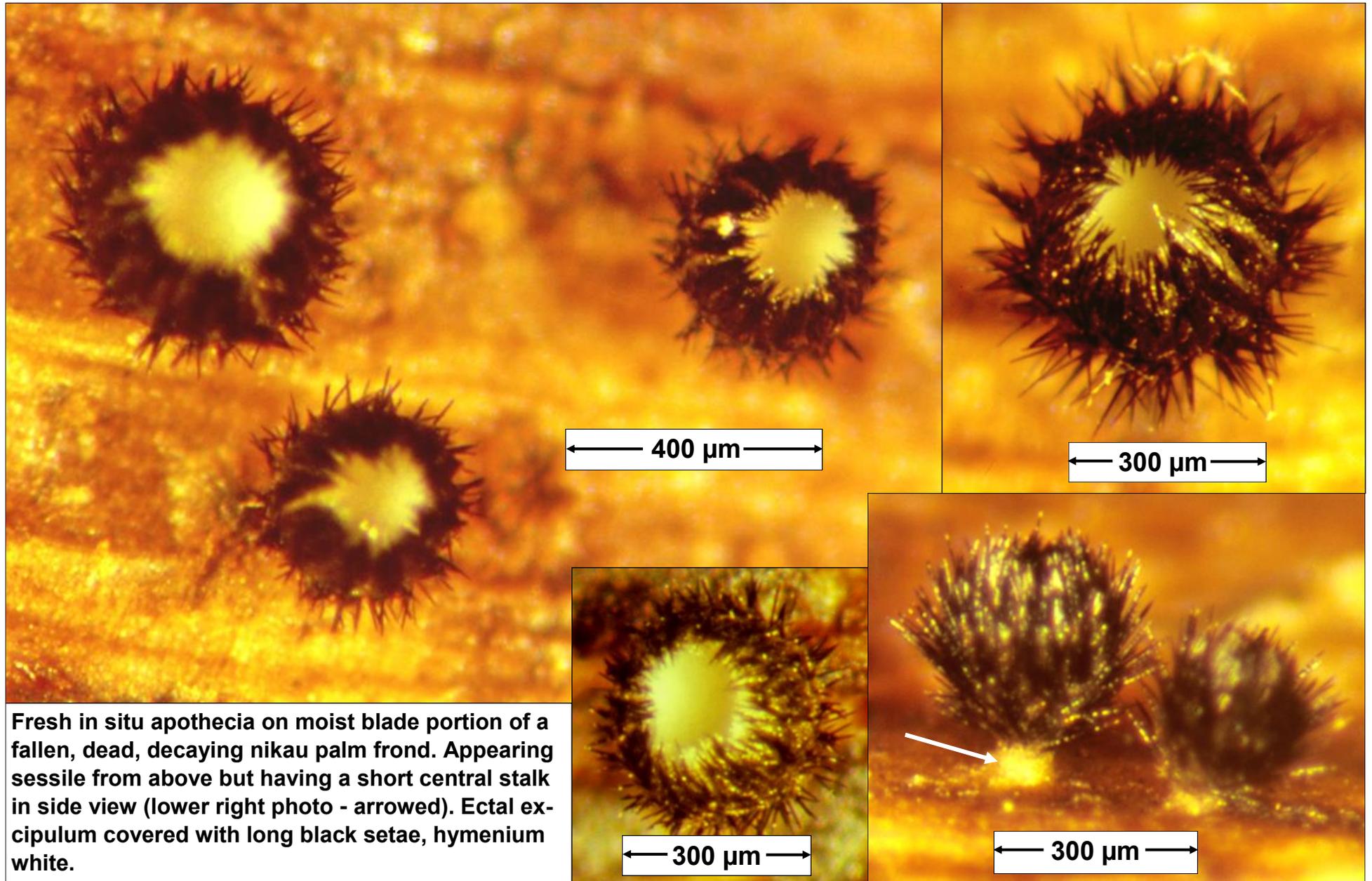
<p>Index Fungorum no. 428 Effectively published 01/01/2020 12:25:11 (ISSN 2049-2375) Nomenclatural novelties : Hans-Otto Baral</p> <p>Asocoryne lilacina (Fr.) Baral, Helleman, Matocec, Kusan, Polhorský & E. Weber, comb.nov. IF554495 Basionym: <i>Peziza lilacina</i> Fr., <i>Syst. mycol.</i> (Lundae) 2(1): 140 (1822)</p> <p>Bryoscyphus phascoides (Fr.) Baral, comb.nov. IF554523 Basionym: <i>Peziza phascoides</i> Fr., <i>Syst. mycol.</i> (Lundae) 2(1): 138 (1822)</p> <p>Bryoscyphus rhytidiaedelpi (Svrček) Baral, comb.nov. IF554526 Basionym: <i>Hymenoscyphus rhytidiaedelpi</i> Svrček, <i>Česká Mykol.</i> 32(1): 17 (1978)</p> <p>Calycellina separabilis (P. Karst.) Baral, comb.nov. IF554478 Basionym: <i>Helotium separabile</i> P. Karst., <i>Bidr. Känn. Finl. Nat. Folk</i> 19: 118 (1871)</p> <p>Capitotricha scabrovillosa (W. Phillips) Baral & Järn, comb.nov. IF554499 Basionym: <i>Peziza scabrovillosa</i> W. Phillips, <i>Grevillea</i> 7(no. 41): 22 (1878)</p> <p>Carestiella schizoxylodes (Ellis & Everh.) Baral, comb.nov. IF554751 Basionym: <i>Sclitio schizoxylodes</i> Ellis & Everh., <i>Proc. Acad. nat. Sci. Philad.</i> 45: 150 (1893)</p> <p>Chaetoscypha horoeke (P.R. Johnst.) Baral & P.R. Johnst., comb.nov. IF556232 Basionym: <i>Pirottaea horoeke</i> P.R. Johnst., <i>N.Z. Jf Bot.</i> 36(4): 648 (1998)</p> <p>Chaetoscypha mahinapua (P.R. Johnst.) Baral & P.R. Johnst., comb.nov. IF556328 Basionym: <i>Pirottaea mahinapua</i> P.R. Johnst., <i>N.Z. Jf Bot.</i> 36(4): 649 (1998)</p> <p>Chaetoscypha palmicola (P.R. Johnst.) Baral & P.R. Johnst., comb.nov. IF556336 Basionym: <i>Pirottaea palmicola</i> P.R. Johnst., <i>N.Z. Jf Bot.</i> 36(4): 650 (1998)</p>	<p>Cistella improvisa (P. Karst.) Baral, comb.nov. IF554485 Basionym: <i>Peziza improvisa</i> P. Karst., <i>Syn. Peziz. Ascob. Fern.</i>: 17 (1881)</p> <p>Cyathicula calathicola (Rehm) Baral, comb.nov. IF554544 Basionym: <i>Helotium calathicola</i> Rehm, <i>Ber. naturhist. Augsburg</i> 26: 77 (1881)</p> <p>Cyathicula paludosa (Velen.) Baral, comb.nov. IF554508 Basionym: <i>Malotium paludosum</i> Velen., <i>Monogr. Diacom. Bohem.</i> (Prague): 210 (1934)</p> <p>Dematiocypha castaneae (J.G. Han, Hosoya & H.D. Shin) Baral, comb.nov. IF554486 Basionym: <i>Amicodisca castaneae</i> J.G. Han, Hosoya & H.D. Shin, <i>Mycotaxon</i> 118: 90 (2011) [2012]</p> <p>Hymenoscyphus tengii (W.Y. Zhuang) Baral, comb.nov. IF554505 Basionym: <i>Lambertella tengii</i> W.Y. Zhuang, <i>Mycosystema</i> 21(4): 476 (2002)</p> <p>Lasiobelonium pseudocorticale (Svrček) Baral, comb.nov. IF554487 Basionym: <i>Lachnum pseudocorticale</i> Svrček, <i>Česká Mykol.</i> 12(4): 229 (1958)</p> <p>Mollisia velebitica (Matocec, I. Kušan, Jadan, Tkalčec & Mešic) Baral, comb.nov. IF554477 Basionym: <i>Pyrenopeziza velebitica</i> Matocec, I. Kušan, Jadan, Tkalčec & Mešic, <i>Periconia</i> 39: 333 (2017)</p> <p>Phaeohelotium epigaeum (P. Karst.) Baral & Friebes, comb.nov. IF554509 Basionym: <i>Helotium epigaeum</i> P. Karst., <i>Not. Sällsk. Fauna et Fl. Fenn. Förh. Ny Ser.</i> 13: 449 (1873) [1871-1874]</p> <p>Pyrenopeziza aquosa (Berk. & Broome) Baral, comb.nov. IF554545 Basionym: <i>Peziza aquosa</i> Berk. & Broome, <i>Ann. Mag. nat. Hist. Ser.</i> 4: 7: 434 (1871)</p> <p>Sarcoleotia cinnamomea (Maas Geest.) Baral, comb.nov. IF554507 Basionym: <i>Nothomitra cinnamomea</i> Maas Geest., <i>Periconia</i> 3(1): 92 (1904)</p> <p>Unguiculella incarnatina (Qué.) Baral, comb.nov. IF554509 Basionym: <i>Mollisia incarnatina</i> Qué., <i>C. r. Assoc. Franç. Avancem. Sci.</i> 13: 285 (1885) [1884]</p>
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Fresh in situ apothecia on moist blade portion of a fallen, dead, decaying nikau palm frond. Appearing sessile from above but having a short central stalk in side view. Ectal excipulum covered with long black setae, hymenium white.



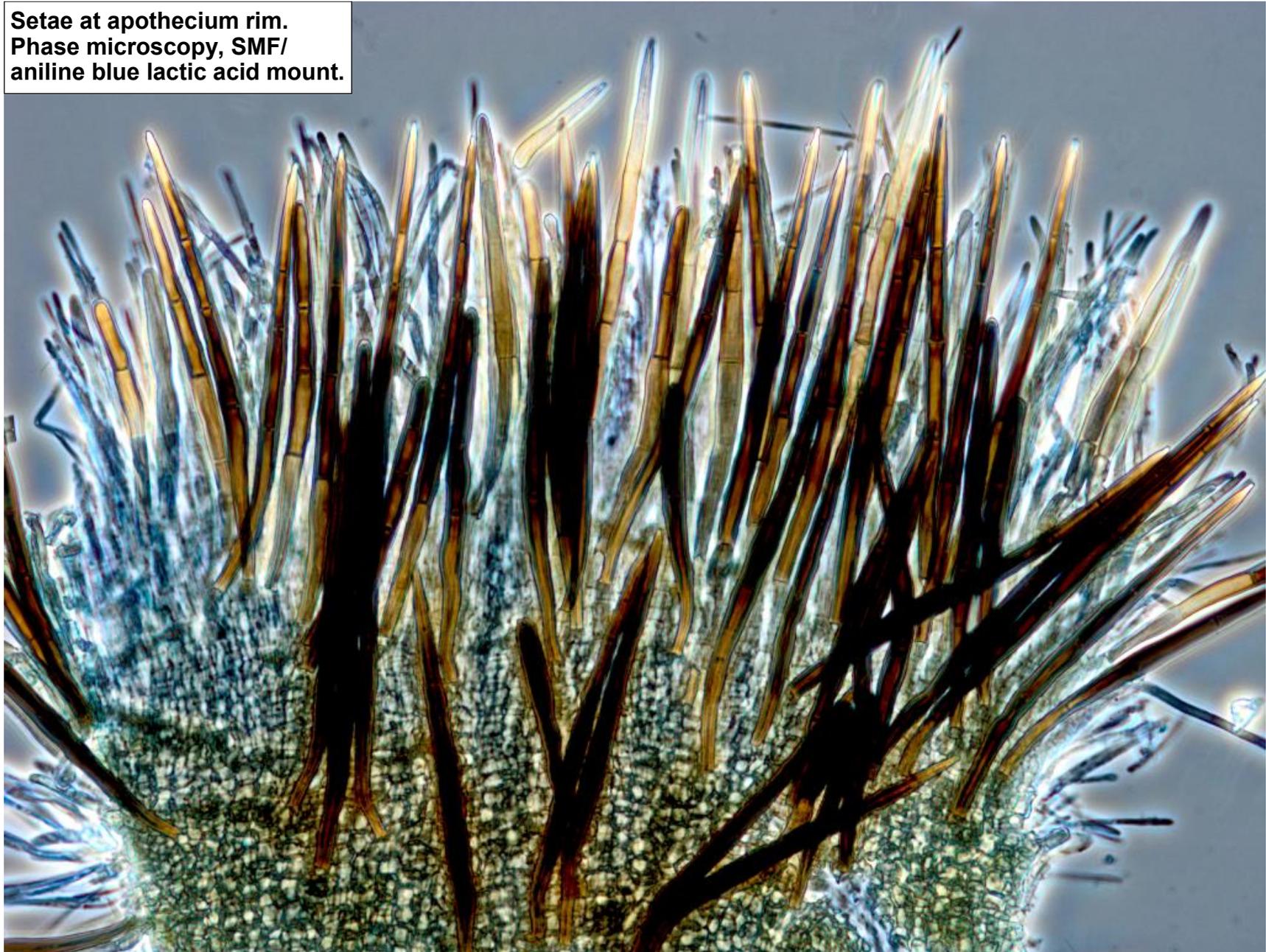
Fresh in situ apothecia on moist blade portion of a fallen, dead, decaying nikau palm frond. Appearing sessile from above but having a short central stalk in side view. Ectal excipulum covered with long black setae, hymenium white.

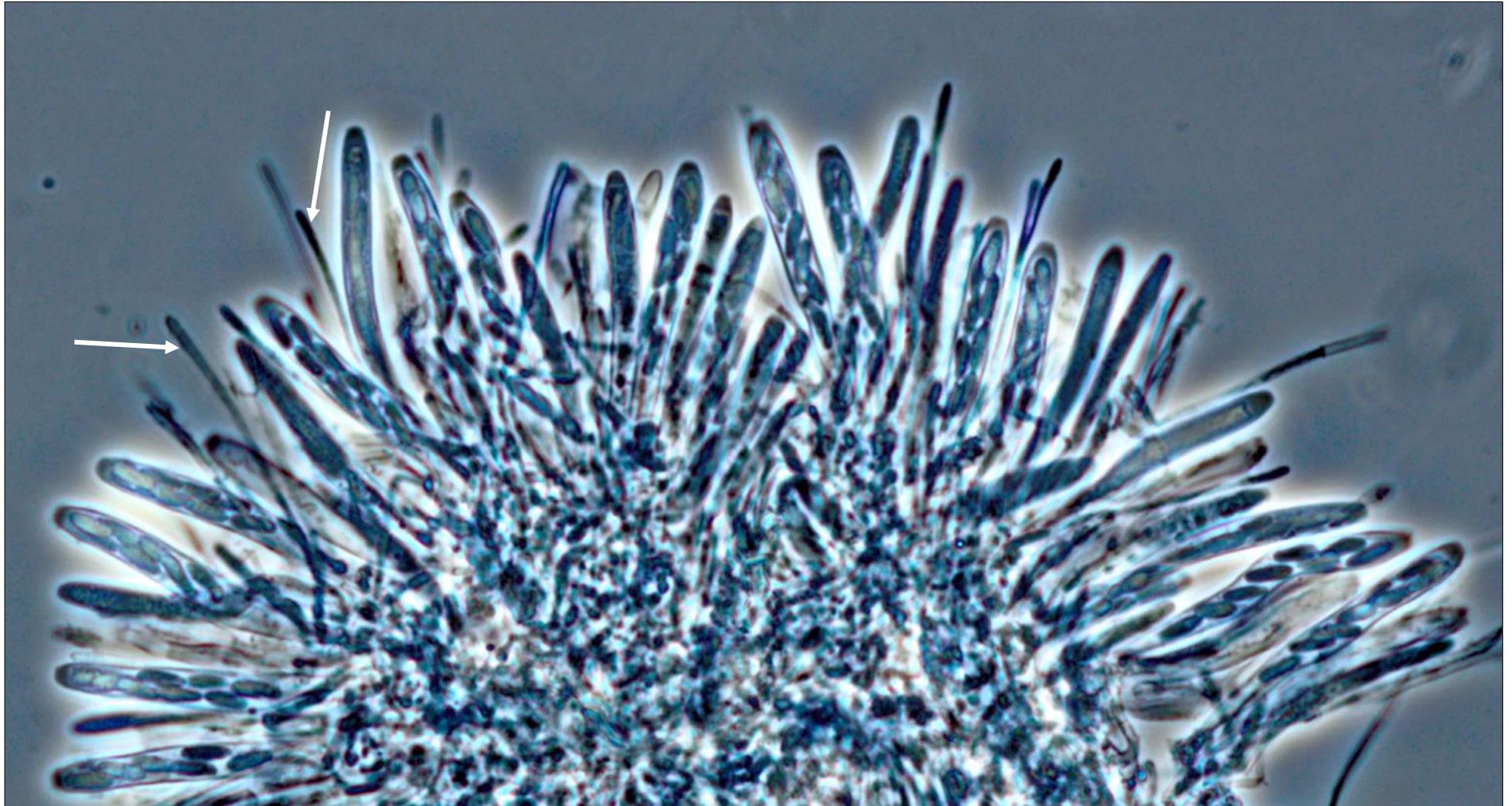


Setae at apothecium rim.
Brightfield microscopy, SMF/
aniline blue lactic acid mount.

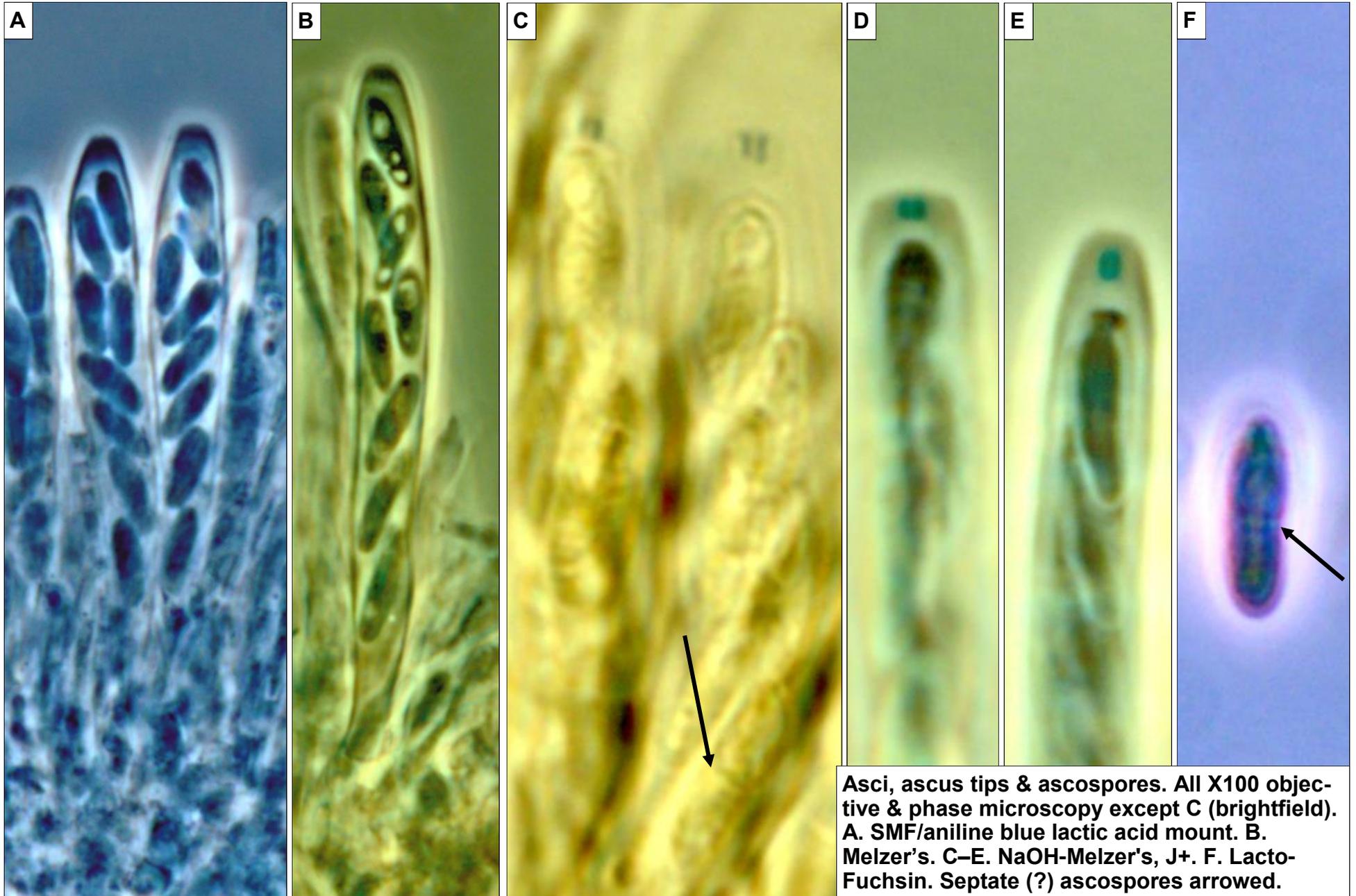


Setae at apothecium rim.
Phase microscopy, SMF/
aniline blue lactic acid mount.





Hymenium squash. Asci and paraphyses. Phase microscopy, SMF/aniline blue lactic acid mount. Paraphyses arrowed.



Asci, ascus tips & ascospores. All X100 objective & phase microscopy except C (brightfield). A. SMF/aniline blue lactic acid mount. B. Melzer's. C-E. NaOH-Melzer's, J+. F. Lacto-Fuchsin. Septate (?) ascospores arrowed.