***Jobellisia nicaraguensis* (Ellis & Everh.) M.E. Barr PDD 92313 (= AEB 971)**
https://scd.landcareresearch.co.nz/Specimen/PDD%2092313
See also *Jobellisia luteola* (Ellis & Everh.) M.E. Barr – PDD 90058 (= AEB 964)

Substrate: dead downed water-soaked *Populus* wood; **Collection dates:** 13 & 16 August 2006

Collection site: Behind cabin #4 in the Summer Lease Lot Group, SW Snowbank Lake, 22 miles NE of Ely, Minnesota U.S.A.

Collector and Identifier: Ann Bell

Voucher materials: dried herbarium specimens from 13 & 16 August 2006 and 1 Shear's mounting fluid (SMF) semi-permanent microscope slide from each collection date; dissecting and compound microscope photos from fresh living material and Shear's mounting fluid (SMF) slides; references consulted.

References consulted:
Presently (Dec. 2025), Index Fungorum recognizes 8 species of *Jobellisia*: *Jobellisia barrii*, *Jobellisia fraterna*, *Jobellisia guangdongensis*, *Jobellisia luteola*, *Jobellisia nicaraguensis*, *Jobellisia peckii*, *Jobellisia saliciluticola*, & *Jobellisia viridifusca*.
Jobellisia rhynchostoma is now recognized as *Bellojisia rhynchostoma* (Höhn.) Réblová 2008

1. Barr M.E. 1993. Redisposition of some taxa described by J.B. Ellis. Mycotaxon 46: 45–76. She described the new genus *Jobellisia.* See the next page for her comments on the genus and her description & illustrations of *Jobellisia nicaraguensis*.

2. Barr M. E. 1994. Notes on the Amphisphaeriaceae and related families. Mycotaxon 51: 191–224. A third species *Jobellisia rhynchostoma* (formerly *Letendraea rhynchostoma* Höhn) is added to the genus and a key to species is provided.

3. Huhndorf S.M., Fernandez F.A. & Lodge D.J. 1999. Neotropical Ascomycetes 9. *Jobellisia* species from Puerto Rico and elsewhere. Sydowia 51(2): 83–196. Two new species are described (*J. barrii* & *J. fraterna*). See their new key to 5 species and their description and illustrations of *J. nicaraguensis* on the page after next.

4. Réblová M. 2008. *Bellojisia*, a new sordariaceous genus for *Jobellisia rhynchostoma* and a description of Jobellisiaceae fam. nov. Mycologia 100(6): 893–901.

5. Liu F., Hu D-M. & Cai L. 2012. *Conlarium duplumascospora* gen. et. sp. nov. and *Jobellisia guangdongensis* sp. nov. from freshwater habitats in China. Mycologia 104(5): 1178–1186. Aside from their new species, they also provide a key to 7 species that includes *Jobellisia viridifusca* C.K.M. Tsui & K.D. Hyde and *Jobellisia saliciluticola* P. Leroy described in 2001 & 2006 resp. See their key on the page after the Huhndorf key.

6. Untereiner W.A., Bogale M., Carter A., Platt H.W., Hanson S., Læssøe T., Štěpánek V. & Réblová M. 2013. Molecular phylogeny of Boliniales (Sordariomycetes) with an assessment of the systematics of *Apiorhynchostoma*, *Endoxyla* and *Pseudovalsaria.* Mycologia 105(3): 564–588. Includes *Jobellisia peckii* (Howe) Unter. & Réblová, comb. nov., the most recent species described in the genus. It most closely resembles *J. fraterna* Huhndorf, Lodge & F.A. Fernández.

Barr, M.E. 1993. Redisposition of some taxa described by J.B. Ellis. Mycotaxon 46: 45–76. A new genus *Jobellisia* is described to accommodate *Letendraea luteola* and *Herpotrichia nicaraguensis*. Its brief description and portions that describe and illustrate the new species *Jobellisia nicaraguensis* are copied below. Where noted a brief comment from Barr, M.E. 1994 is also included.

1993

Page 60: *Jobellisia* Barr, gen. nov. Species typicus *Letendraea luteola* Ellis & Everh. [now *Jobellisia luteola* (Ellis & Everh.) M.E. Barr]

Page 61: The new genus is required to accommodate a group of species having brown, ellipsoid, one-celled or one-septate ascospores that usually contain terminal germ pores. Asci are typical of the Clypeosphaeriaceae and ascomata are gregarious or separate, papillate or beaked, immersed in or erumpent from the substrate. Stromatic tissues form a closely adhering crust around erumpent ascomata or beaks of immersed ascomata.

1994

Page 208: *Jobellisia* was originally described for two species, *J. luteola* (Ellis & Everh.) M.E. Barr and *J. nicaraguensis* (Ellis & Everh.) M.E. Barr.

1993 Pages 61 & 62:

Jobellisia nicaraguensis (Ellis & Everh.) Barr, comb. nov. Figs. 2. p, q

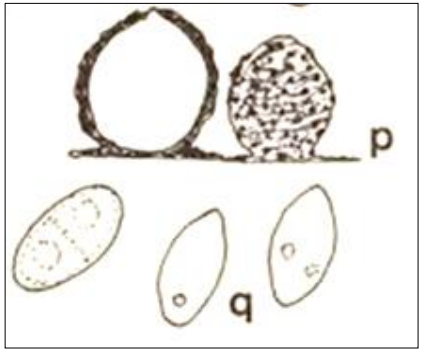
Herpotrichia nicaraguensis Ellis & Everh. in C.L. Smith, Bull. Iowa Univ. Lab. Nat. Hist. 2: 400. 1893.

Ascomata gregarious, superficial on and surrounded by thin blackish, crustose stromatic tissues of dark brown, thick-walled pseudoparenchymatous cells; ascomata ovoid, 385–440 µm high, 330 µm wide; scarcely papillate; peridium dark brown externally, 30 µm wide, compressed rows of cells, hyaline internally, up to 30 µm wide. **Asci** p. sp. 50–80 × 6–7 µm, stipe ca. 20 µm long, cylindric, unitunicate; apical ring narrow, nonamyloid, pulvillus refractive. **Paraphyses** numerous. **Ascospores** 10–12 × 4.5–5 µm, oblong ellipsoid, brownish, one-celled or occasionally 1-septate; wall smooth, one- or two-minute germ pores terminal or subterminal; uniseriate in the ascus.

On rotten wood. Nicaragua; Ometepe, Lake Nicaragua, winter (Jan-Feb) 1893, B. Shimek, Nicaragua F. 77, holotype; Central Amer. R.C.L. Smith 8, isotype (NY).

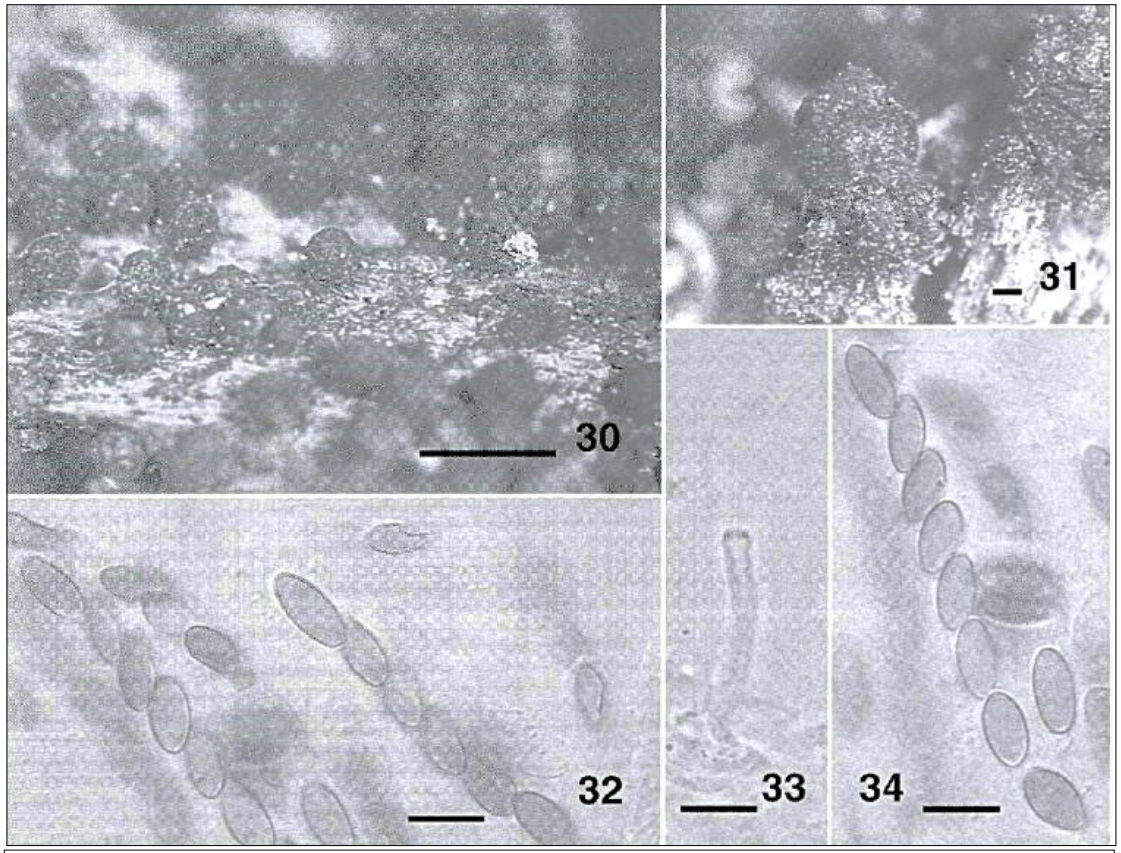
The two packets are obviously parts of a single collection. The species deviates from *J. luteola* in denser, more deeply pigmented stromatic covering and in variable position of germ pores in the ascospores.

Pages 58 & 59:



Figs 2. p, q. *Jobellisia nicaraguensis*. p, habit of ascomata, one showing surface where crustose stroma was removed, q, ascospores.

Huhndorf S.M., Fernandez F.A. & Lodge D.J. 1999. Neotropical Ascomycetes 9. *Jobellisia* species from Puerto Rico and elsewhere. Sydowia 51(2): 183-196.



Figs. 30-34. *Jobellisia nicaraguensis.* 30, 31. Ascomata on substrate. 32. Ascospores. 33. Ascus apex. 34. Ascus.

Ascomata ovoid, not collapsing when dried; 400-475 µm diameter, 425-525 µm high; numerous; gregarious; superficial; short papillate; surface roughened; dark brown to black. **Asci** cylindric; p. sp. 50-80 x 6-7 µm; stipe 20 µm long; ring narrow, pulvillus refractive (Barr, 1993). **Ascospores** oblong ellipsoid; 10-12 x 4.5-5.5 µm; pale brown; one celled; wall smooth; without sheath or appendages.
Habitat. On decaying wood; **Known distribution.** Nicaragua.
M a t e r i a l examined. NICARAGUA. Ometepe, Lake Nicaragua, winter (Jan-Feb) 1893, B. Shimek, Nicaragua Fungi 77 (holotype); Central Amer. Fungi, C. L. Smith 8 (isotype) (NY).

Key to species

1. Ascospores one-septate, with darker band of pigment at septum……..2
1. Ascospores one-celled or one-septate without darker band of pigment at septum……..4
2. Ascomata roughened, luteous, orange to yellow-brown colored, appearing darker when dried, collapsing, ascospores ellipsoid, red brown, 11-14 x 4.5-5.5 µm……*J. luteola*
2. Ascomata roughened, dark brown or smooth with black to dark blue-green iridescence, not collapsing……3
3. Ascomatal outer wall smooth, black to dark blue-green iridescent, easily shed exposing bright orange middle wall, ascospores ellipsoid, red brown, 9-11.5(-11.8) x 3-4.5 µm ……...*J. barrii*
3. Ascomatal outer wall roughened, dark brown, not easily shed, without bright orange middle wall, ascospores ellipsoid, red brown, larger, (9.5-)11-14.5(-15) x 4.25-5 µm……..*J. fraterna*
4. Ascomata immersed to erumpent, apex beaked, ascospores one-septate, ellipsoid, navicular inequilateral, one side slightly curved, 9-15 x 4.5-7.5 µm……...*J. rhynchostoma*
4. Ascomata superficial, ovoid, apex not beaked, ascospores one-celled, oblong ellipsoid, 10-12 x 4.5-5.5 µm…….*J. nicaraguensis*

Liu F, Hu D-M, & Cai L. 2012. *Conlarium duplumascospora* gen. et. sp. nov. and *Jobellisia guangdongensis* sp. nov. from freshwater habitats in China. Mycologia 104(5): 1178–1186.

KEY TO ACCEPTED SPECIES OF *JOBELLISA* (pages 1181 & 1184)

1. Asci with large refractive apical ring, ascospores one-septate, with darker band of pigment at septum……2

1'. Asci with delicate ring-like structures, ascospores one-septate or one-celled without darker band of pigment at septum……*J. nicaraguensis*

2. Ascospores ellipsoidal and reddish-brown……3

2'. Ascospores not as above……5

3. Ascomata luteous, orange to yellow-brown, collapsing, ascospores 11–14 × 4.5–5.5 µm……*J. luteola*

3'. Ascomata dark brown, black or dark blue-green iridescence, not collapsing……4

4. Ascoma wall smooth, black to dark blue-green iridescence, easily shed exposing bright orange middle wall; ascospores 9–11.5(–11.8) × 3–4.5 µm……*J. barrii*

4'. Ascoma wall roughened, dark brown, not easily shed, without bright orange middle wall; ascospores (9.5–)11–14.5(–15) × 4.25–5 µm……*J. fraterna*

5. Asci cylindrical, 135–150 × 7–8 µm; ascospores oblong, (16–)18–19(–20) × 5–6 µm……*J. saliciluticola*

5'. Ascospores shorter than 16 µm……6

6. Asci 76.5–97 × 5–8 µm; ascospores 8–10.5 × (3–)3.5–4.5 µm……*J. guangdongensis*

6'. Asci 96–105.5 × 6–7 µm; ascospores 11–13.5 × 3.5–5 µm……*J. viridifusca*

Page 1184: Six species currently (now 7 with their new species *J. guangdongensis*) are recognized in *Jobellisia*, namely *J. luteola* (Ellis & Everh.) M.E. Barr, *J. nicaraguensis* (Ellis & Everh.) M.E. Barr, *J. barrii* Huhndorf, Lodge & F.A. Fernandez, *J. fraterna* Huhndorf, Lodge & F.A. Fernandez, *J. saliciluticola* P. Leroy and *J. viridifusca (*Barr 1993, Huhndorf et al. 1999, Leroy 2006, Ranghoo et al. 2001). *Jobellisia rhynchostoma* (Hohn.) M.E. Barr has been transferred to *Bellojisia* (Lasiosphaeriaceae, Sordariales) based on phylogenetic analyses of partial LSU rDNA sequence data (Reblova 2008), which is supported by our molecular analysis (FIG. 2).

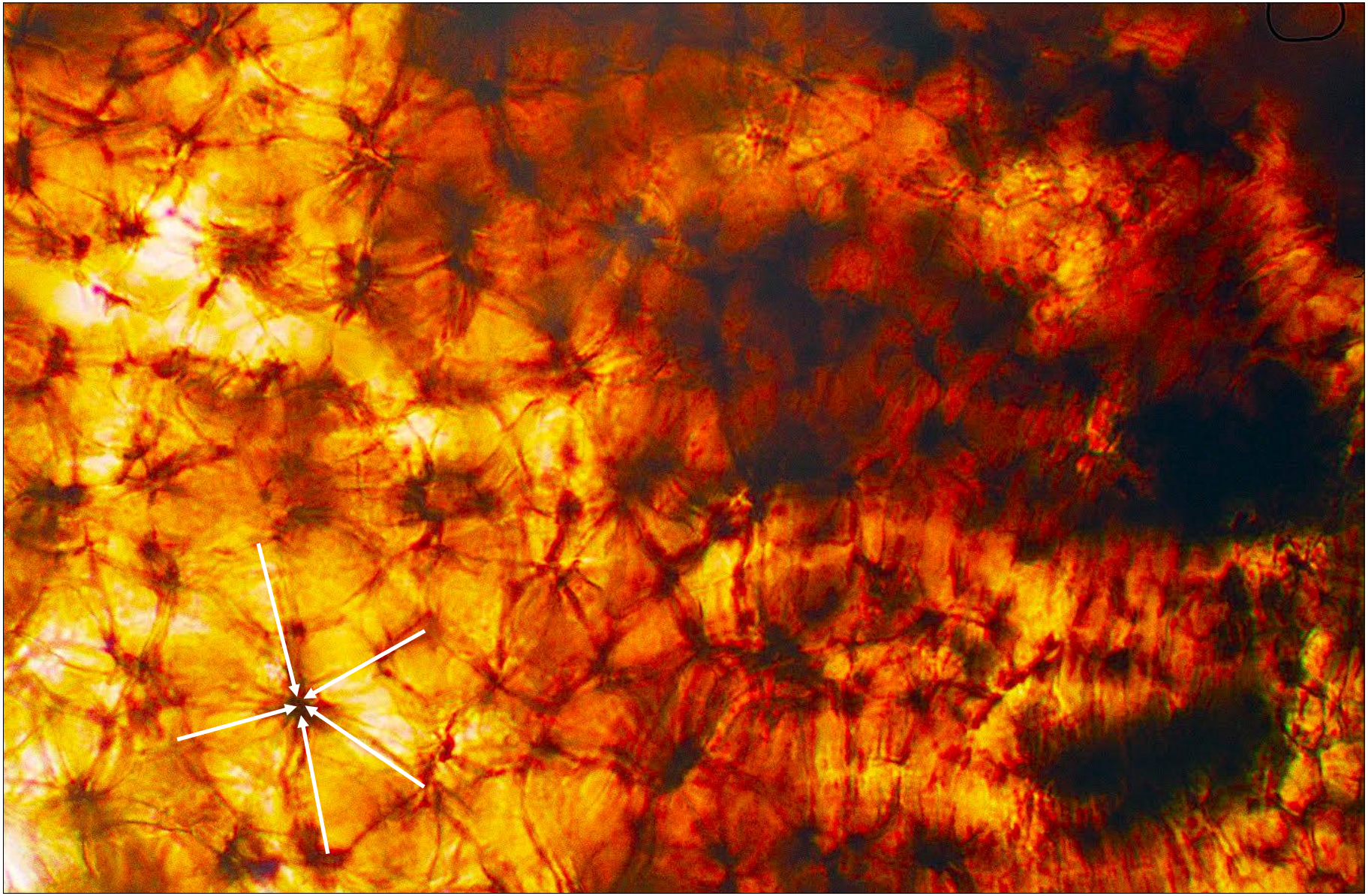
Description of AEB 971

Ascomata were separate to clustered (more separated and less abundant in the 13 Aug. collection and clustered and more numerous in the 16 Aug. collection). Younger ascomata were globose and covered with a white, closely wooly tomentum. A thicker **stroma** of this same white wooly tomentum was scattered both beneath the ascomata and at random among them over the substrate. Ascomata were attached to the tomentum (and to the woody substrate) by a crown of stiff dark brown rooting hairs. As the ascomata enlarged, the tomentum did not enlarge also – resulting of a stretching and thinning of the tomentum. As ascomata matured they appeared to have plate-like areas of thin whitish grey tomentum and increasingly larger dark areas between these. At maturity many of the ascomata were nearly black although some thin remnants of the white tomentum persisted in regular fashion over the peridium. A small black smooth ostiole appeared at the apex of the subglobose to broadly ellipsoid ascomata. The **peridium** was unique with its brown rows of narrow elongate cells forming concentric rings around and near the ostiole and especially with its petaloid cell arrangements over the rest of the venter peridium. These petaloid cell arrangements were composed of brownish wedge-shaped cells joined at their inner apices where the dark brown coloration was most prominent. **Paraphyses** were longer than the asci, hyaline, smooth, septate and composed of swollen cells slightly indented at their septa. Paraphyses appeared to be simple below the apices of the asci but above that they occasionally branched, giving rise to one or two (the latter appearing dichotomous) narrower, smooth, septate and gradually attenuated branches. **Asci** were cylindrical with a small apical ring (non-amyloid in Melzer's) and a moderately short, narrower-cylindrical stipe. The eight **ascospores** were uniseriately arranged (or nearly so), one-celled, elongate ellipsoid to nearly capsular or somewhat ovoid, (with rounded to occasionally slightly attenuated apices), light brown (but distinctly brownish), smooth with two prominent vacuoles in water mounts (one toward each extremity), 10–12 × 5–6 µm.

Comment: Asci of the first collection rarely had more than 4 mature ascospores per ascus (the remaining four were present but didn't seem to mature or become pigmented). The second collection, however, had more asci that contained 8 mature, pigmented ascospores.

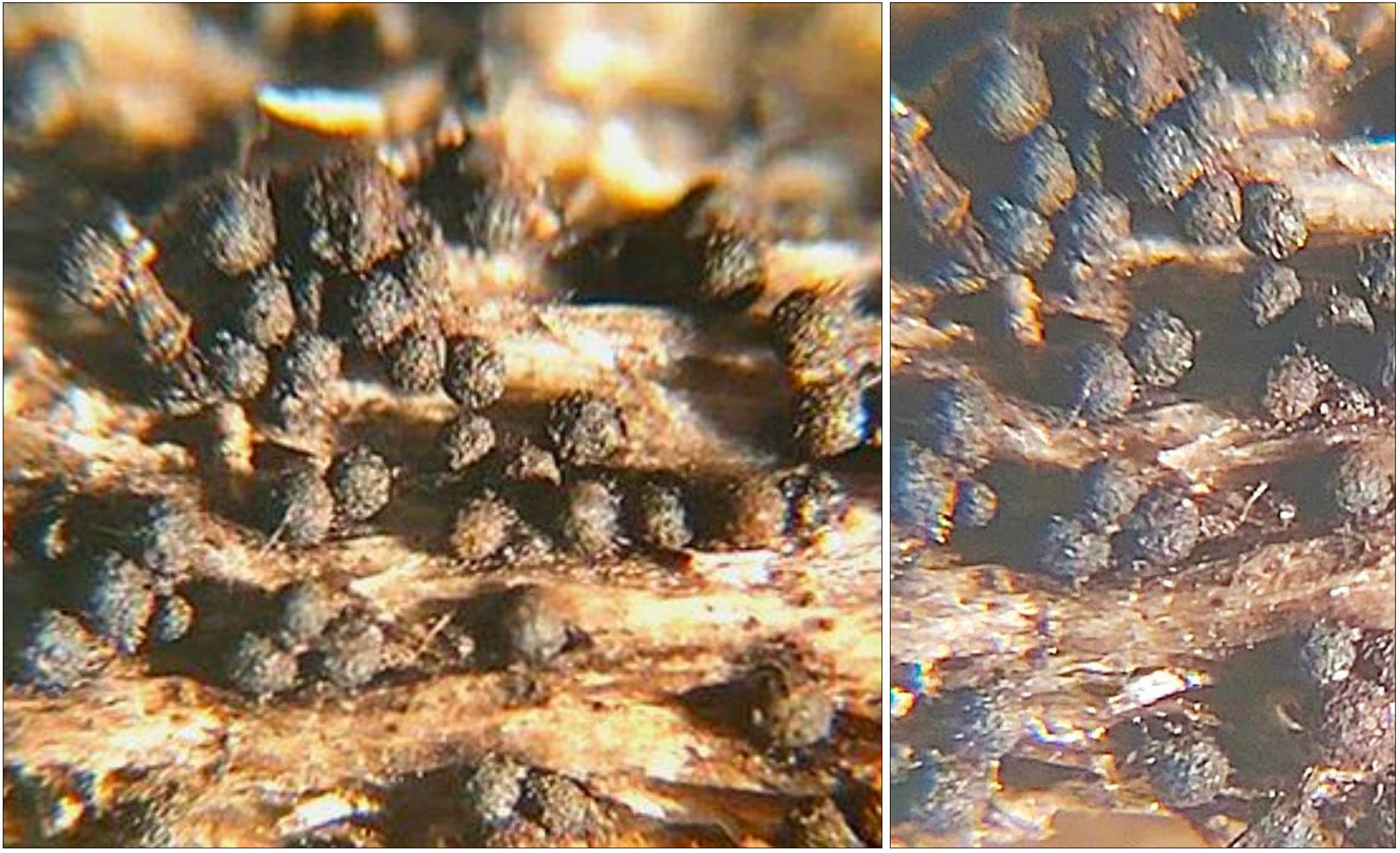
Herbarium specimen (16 August 2006 collection) for *Jobellisia nicaraguensis* PDD 92313 (= AEB 971)

AEB 971 collection 16 Aug. 2006. In-situ photo of fresh ascomata. Younger ones are covered with a white, closely wooly tomentum. At maturity ascomata were nearly black with only remnants of the white tomentum persisting. Note the ostiole (arrowed).



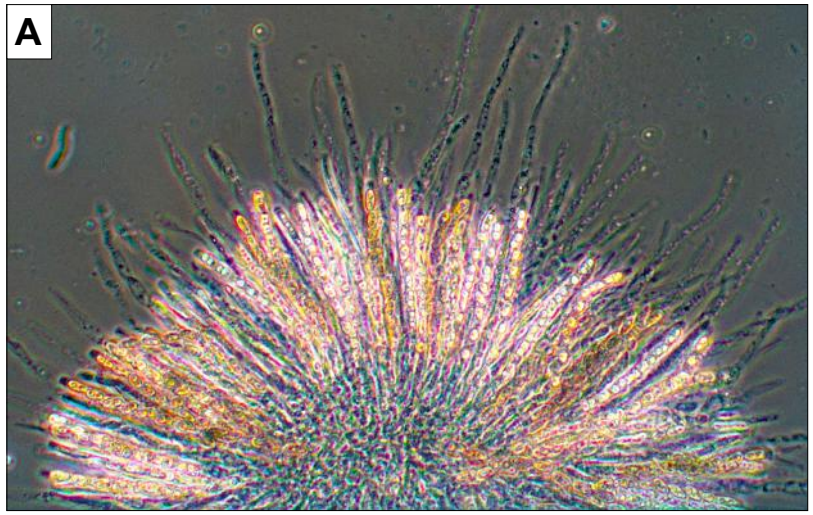
AEB 971 collection 16 Aug. 2006. Water mount slide closeup of fresh ascoma peridium – ostiole beyond the right edge, venter portion to the left. Darker rows of narrow elongate cells form concentric rings around the ostiole with petaloid cell arrangements over the rest of the venter peridium. Petaloid cell arrangements were composed of wedge-shaped cells joined at their inner apices (roughly shown) where the dark coloration was most prominent.

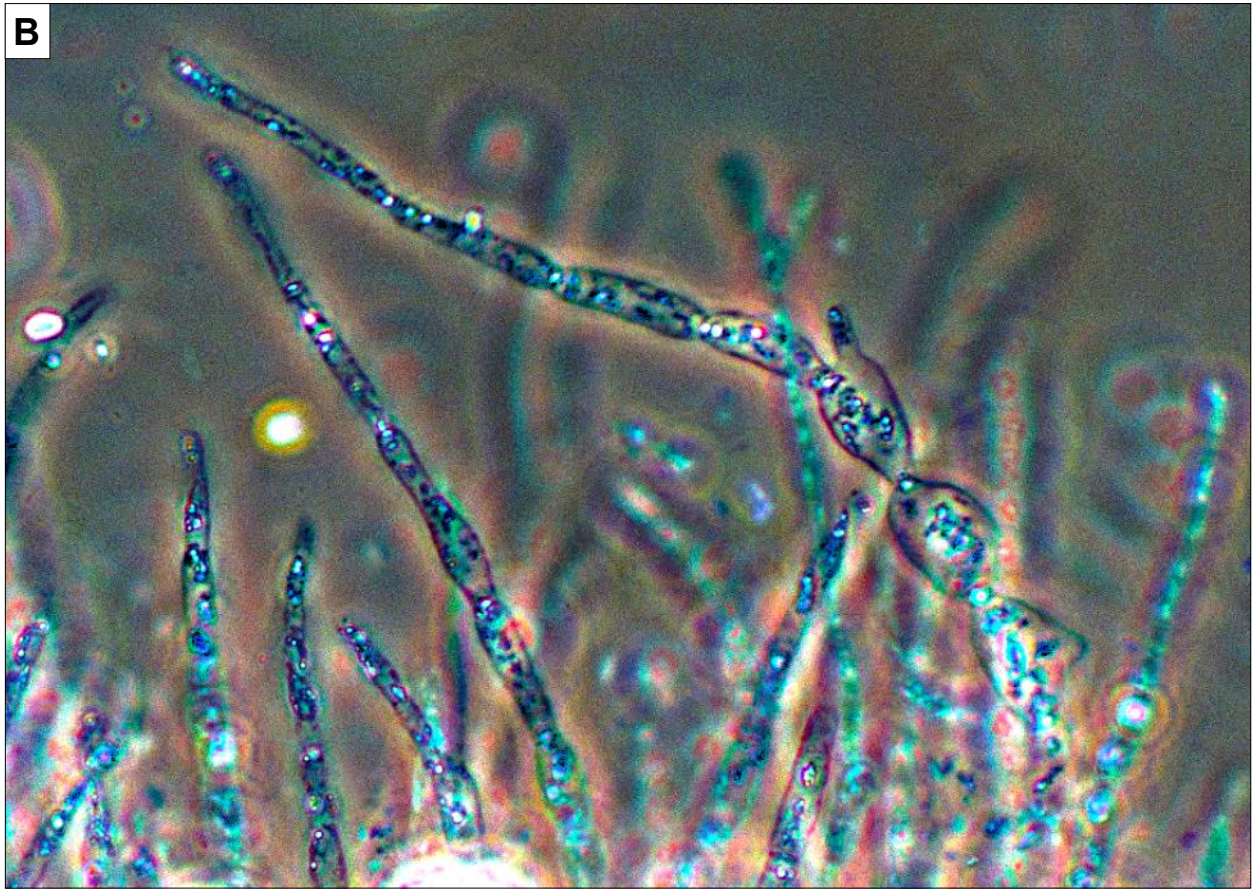
AEB 971 collection 16 Aug. 2006. In-situ ascomata on the surface of the dead *Populus* wood herbarium sample – shown here and on the next page with different lighting and cropping in Dec. 2025 (specimen 19+ yrs. old). Photographed with a Samsung Galaxy A70 smartphone camera through the eyepiece of a Zeiss dissecting microscope.

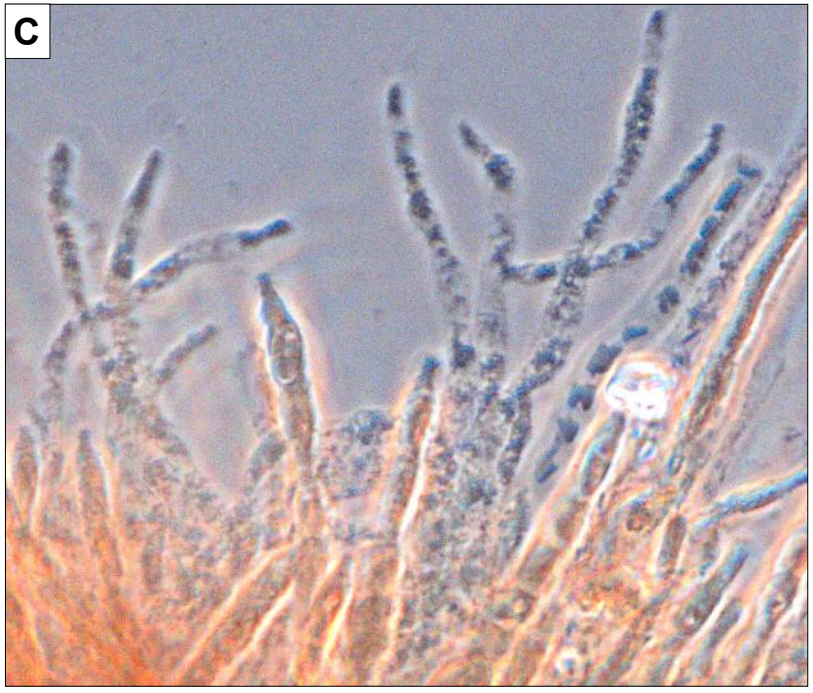


AEB 971 collection 16 Aug. 2006. In-situ ascomata on the surface of the dead *Populus* wood herbarium sample—shown here & on the previous page with different lighting & cropping in Dec. 2025 (specimen 19+ yrs. old). Photographed with a Samsung Galaxy A70 smartphone camera through the eyepiece of a Zeiss dissecting microscope.

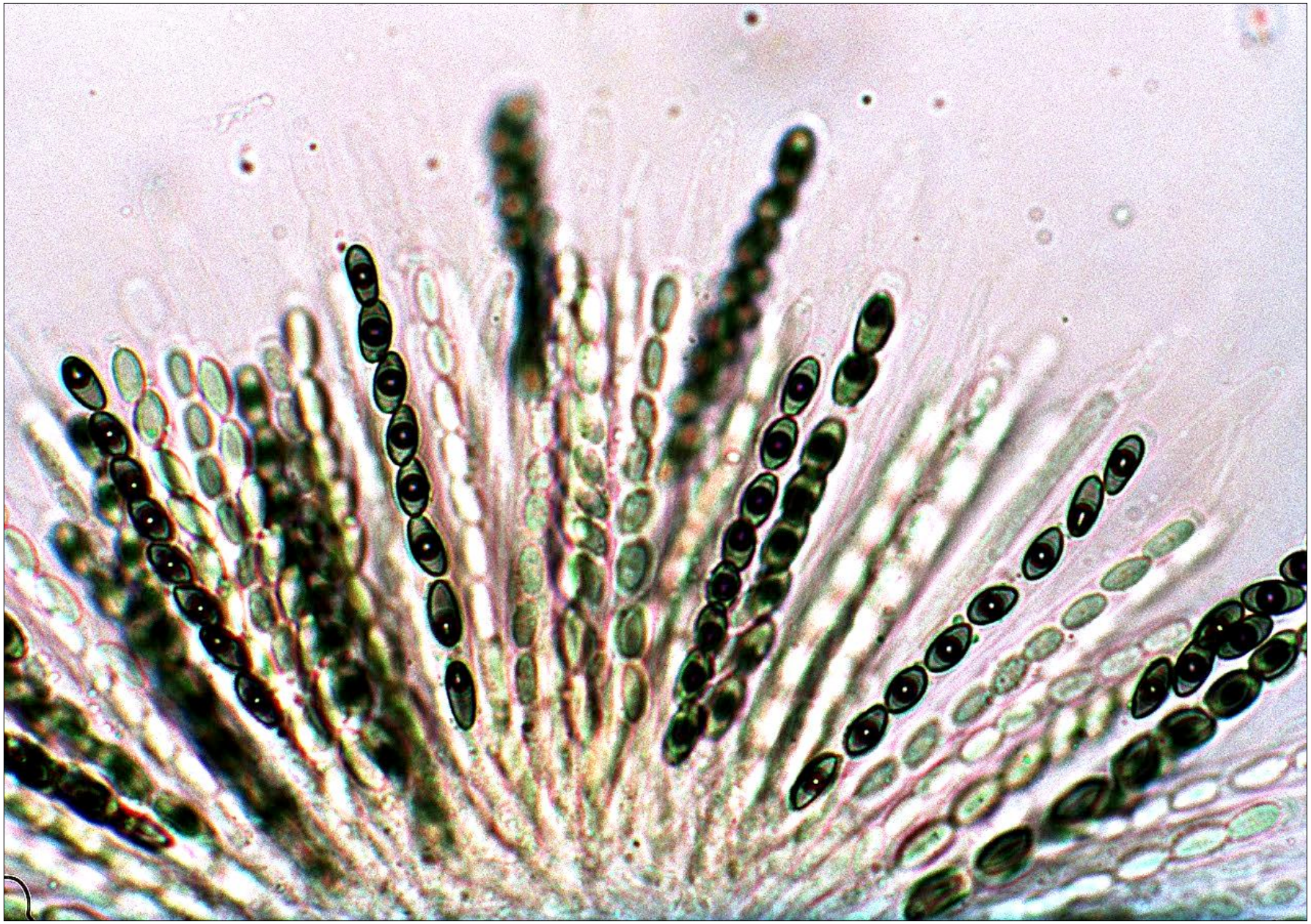
AEB 971 collection 16 Aug. 2006. In-situ ascomata on the surface of the dead *Populus* wood herbarium sample. Photographed as described on the previous 2 pages. Here, however, is a different field of view that emphasizes infrequent spinose outgrowths from the tomentum on several ascomata. Note also the arrowed ascoma ostiole.







AEB 971. A–C. Collection 16 Aug. 2006. A,B. Phase microscopy photos of asci and paraphyses from water mounts of fresh squashed ascomata. C. Branching paraphysis in original SMF voucher slide rejuvenated with SMF in Dec. 2025. Paraphyses longer than the asci, hyaline, smooth, septate and composed of swollen cells slightly indented at their septa.



AEB 971. Collection 16 Aug. 2006. SMF slide prepared in 2006 that emphasizes typical mature & immature narrow cylindrical asci containing 8 uniseriately arranged ascospores. Note the large deBary bubble in mature spores.

AEB 971. Collection 16 Aug. 2006. Left photo: mature ascus in a water mount. Note the 2 polar vacuoles in each ascospore. Right photo: mature ascus in SMF. Note the large deBary bubble in each ascospore. A faint apical ring is visible in each ascus photo.