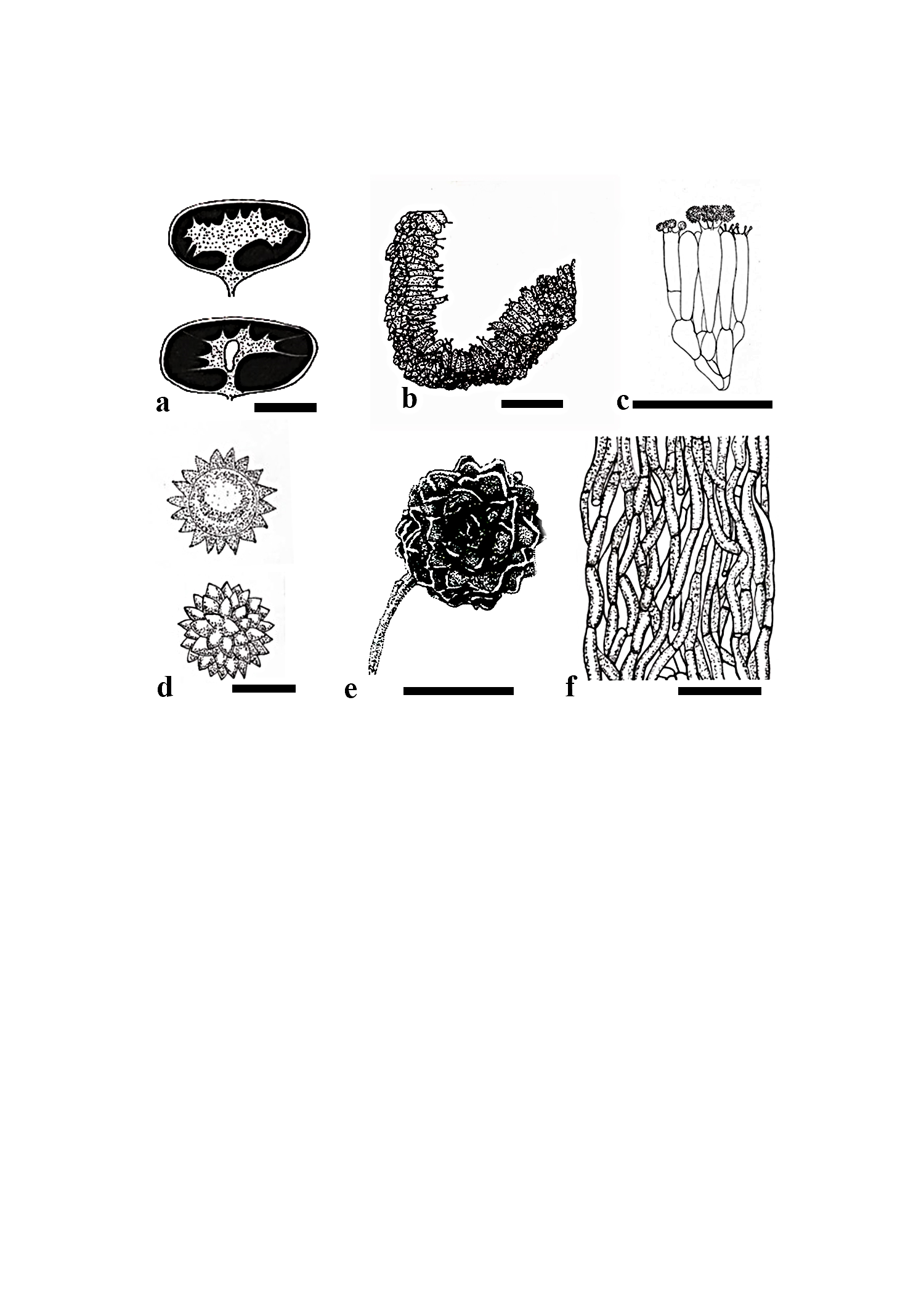
**Fungalpedia - Note 34** [***Heliogaster***](http://www.indexfungorum.org/Names/NamesRecord.asp?RecordID=513563)

[***Heliogaster***](http://www.indexfungorum.org/Names/NamesRecord.asp?RecordID=513563) Orihara & K. Iwase

**Citation if using this entry**: Fallahi et al. (2023) New genera in 2010-2011. Mycosphere (in prep)

[Index Fungorum](http://www.indexfungorum.org/Names/NamesRecord.asp?RecordID=513563), Facesoffungi, [MycoBank](https://www.mycobank.org/page/Name%20details%20page/460308), [GenBank](https://www.ncbi.nlm.nih.gov/nuccore/KX685718.1), Fig 1.

The monotypic sequestrate genus [*Heliogaster*](http://www.indexfungorum.org/Names/NamesRecord.asp?RecordID=513563)was described in [Boletaceae](https://en.wikipedia.org/wiki/Boletaceae) byOrihara et al. ([2010](https://doi.org/10.3852/08-168)). The genus accommodates a single species [*Heliogaster columellifer*](http://www.indexfungorum.org/Names/NamesRecord.asp?RecordID=513563), formerly named [*Octaviania columellifera*](http://www.indexfungorum.org/Names/NamesRecord.asp?RecordID=261372) ([Kobayasi 1937](https://doi.org/10.15281/jplantres1887.51.291)). It is usually found under *Abies firma* (Pinaceae) in Japan*.* Orihara et al. ([2010](https://doi.org/10.3852/08-168)) used morphological and nuclear large subunit (nLSU) and ITS sequence data to evaluate herbarium and fresh specimens of [*Octaviania columellifera*](http://www.indexfungorum.org/Names/NamesRecord.asp?RecordID=261372)and [*Octaviania asterosperma sensu*](http://www.indexfungorum.org/Names/NamesRecord.asp?RecordID=199741) lato (Japanese [*Octaviania* *asterosperma*](http://www.indexfungorum.org/Names/NamesRecord.asp?RecordID=199741)). They found these two species were identical in morphological and molecular characteristics and obviously diverse from the generally known [*Octaviania asterosperma*](http://www.indexfungorum.org/Names/NamesRecord.asp?RecordID=199741). In the phylogenetic assay, they clustered in the same lineage with the boletoid mushroom-forming [*Xerocomus chrysenteron*](http://www.indexfungorum.org/Names/NamesRecord.asp?RecordID=356935) complex ([Orihara et al. 2010](https://doi.org/10.3852/08-168)). With this information, the new genus [*Heliogaster*](http://www.indexfungorum.org/Names/NamesRecord.asp?RecordID=513563)was proposed for [*Octaviania columellifera*](http://www.indexfungorum.org/Names/NamesRecord.asp?RecordID=261372)and the Japanese [*Octaviania* *asterosperma*](http://www.indexfungorum.org/Names/NamesRecord.asp?RecordID=199741)clade*.* It is characterized by sectioned to gasteroid basidiomata, and non-pulverulent gleba which is usually discolored when exposed to air. The columella is mostly present and relatively dendroid. Basidia are clavate to cylindro-clavate. Basidiospores are dextrinoid, conical to pyramidal, and relatively striate.



**Fig 1**- [***Heliogaster columellifer***](https://www.indexfungorum.org/names/NamesRecord.asp?RecordID=513564) (Redrawn from Orihara et al. (2010) (b, e), and Kobayasi (1937) (a, c, d, and f)). a Median section of fruiting body. b, c Section of Hymenium. d, e Mature basidiospore. f Section of peridium. Scale bars: a=2 cm; b, c, f=50 μm; d, e=10 μm.

The perisporium and ectosporium are present. There is no palisadoderm on the periodical surface that is found in every species of the [*Xerocomus chrysenteron*](http://www.indexfungorum.org/Names/NamesRecord.asp?RecordID=356935) complex ([Orihara et al. 2010)](https://doi.org/10.3852/08-168).

**Type species:** [***Heliogaster columellifer***(Kobayasi) Orihara & K. Iwase](http://www.indexfungorum.org/Names/NamesRecord.asp?RecordID=513564)

**References**

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Orihara T, Sawada F, Ikeda S, Yamato M, Tanaka C, Shimomura N, Makoto H, Iwase, K. 2010-Taxonomic reconsideration of a sequestrate fungus, *Octaviania columellifera*, with the proposal of a new genus, *Heliogaster*, and its phylogenetic relationships in the Boletales. Mycologia 102, 108-121. <https://doi.org/10.3852/08-168>

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