





<b><u>Genus</u></b>	<b><u>Species</u></b>	<b><u>Author</u></b>
<i>Pseudohalonectria</i>	<i>adversaria</i>	C. A. Shearer
<b><u>Class</u></b>	<b><u>Order</u></b>	<b><u>Family</u></b>
Sordariomycetes	Inc. sed.	Magnaporthaceae

MycoBank ID: [136210](#)

**Synonymy:**

**Description**

- Habit:** Saprobiic, ascomata immersed or partially immersed in submerged, dead woody debris.
- Ascomata:** Ascomata 445-614µm diam, solitary to clustered, superficial or immersed, globose, orange brown, membranous, rostrate. 
- Peridium:** Outer wall layer of peridium brownish orange, of textura angularis in surface view, inner layer pseudoparenchymatic, light orange. 
- Beak:** Beaks 79-248 x 109-158 µm, cylindrical, periphysate.
- Hamathecium:** Paraphyses septate, 133-230 µm long, 4-7.8 µm wide at base, tapering to a rounded point, attached to ascogenous hyphae.
- Ascus:** Asci 120-150 x 13-20 µm, unitunicate, containing eight ascospores in two overlapping fascicles of four, hyaline to pale orange, cylindrical or clavate, with IKI negative, cotton blue positive apical apparatus 2.5-5 x 2.5-3 µm, apex indented at apical pore, separating from ascogenous hyphae and lying free in venter cavity. 
- Ascospore:** Ascospores 33.5-49 (x= 41.9) x 4.5-7 (x= 5.9) µm, hyaline to pale orange, orange in mass, ellipsoidal, 5, occasionally 6 or 7 septate. 
- Sheath:** None observed.
- Appendage:** None observed.
- Culture:** ATCC, Colonies on cornmeal agar floccose, with regular margin, aerial hyphae white, immersed hyphae creamy yellow, reverse dull yellow.
- Anamorph:** Not seen.

## Other info

**Type & Location:** USA: Illinois, Johnson County, Deer Pond (Elvira Cypress Swamp), dried culture derived from a single ascospore from an ascoma on submerged wood and grown on alfalfa stems. CS 603-1, C. A. Shearer, 8 Aug 1977. NY

### Other Specimens:

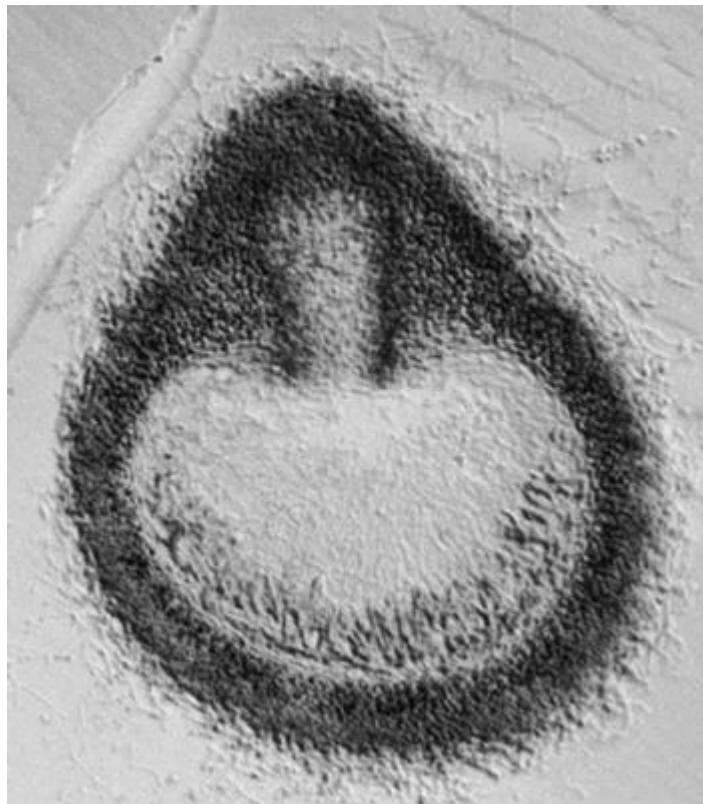
**Substratum:** Wood

**Habitat:** Lentic (swamp)

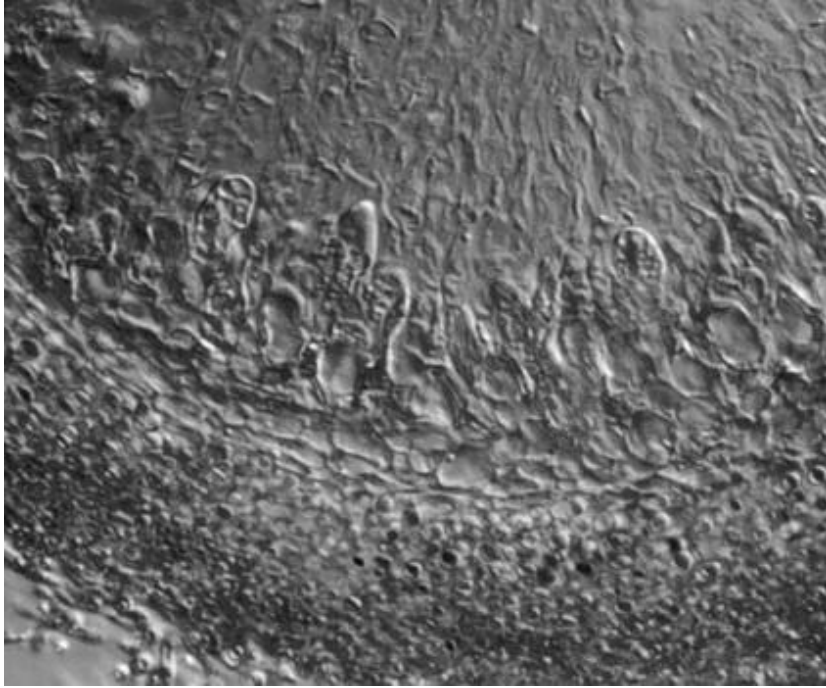
**Distribution:** USA (II).

**Pertinent Literature:** Shearer, C.A. 1989. *Pseudohalonectria* (Lasiosphaeriaceae), an antagonistic genus from wood in freshwater. *Canadian Journal of Botany* 67: 1944-1955.

*Pseudohalonectria adversaria*  
Ascomata



*Pseudohalonectria adversaria*  
Peridium



*Pseudohalonectria adversaria*  
Ascus



*Pseudohalonectria adversaria*  
Ascospore



<b><u>Genus</u></b>	<b><u>Species</u></b>	<b><u>Author</u></b>
<i>Pseudohalonectria</i>	<i>falcata</i>	Shearer, C.A.
<b><u>Class</u></b>	<b><u>Order</u></b>	<b><u>Family</u></b>
Sordariomycetes	Inc. sed.	Magnaporthaceae

Genbank ID: [45983](#)

**Synonymy:**

## Description

**Habit:** Saprobiic, ascomata immersed on submerged, dead woody debris.

**Ascomata:** Ascomata 277-535  $\mu\text{m}$  diam, immersed on wood, yellowish brown, membranous, rostrate, venter globose to subglobose.



**Peridium:** Peridium of textura angularis in face view, pseudoparenchymatic in longitudinal section with an outer covering of loosely interwoven hyphae.



**Beak:** Beaks 81-162 x 81-108  $\mu\text{m}$ , cylindrical with rounded apex, light yellow or light brownish yellow, periphysate.

**Hamathecium:** Paraphyses 94-209 x 4.8-12  $\mu\text{m}$ , septate, tortuous at first, with or without constrictions at the septa, of large thin-walled cells, attached to ascogenous hyphae.



**Ascus:** Asci 106-244 x 14.4-21.6  $\mu\text{m}$ , unitunicate, hyaline, cylindrical to cymbiform, sometimes sigmoidal, with IKI-negative, flattened apical apparatus which stains bright blue in slightly acidic aqueous cotton blue, separating from or remaining attached to ascogenous hyphae, containing eight ascospores in a single fascicle.



**Ascospore:** Ascospores 97-166 (x =135) x 4.2-7.2 (x =5.8)  $\mu\text{m}$ , 6 to 16 septate, hyaline, falcate, sometimes slightly sigmoid.



**Sheath:** None observed.

**Appendage:** None observed.

**Culture:** ATCC 56673. Colonies on cornmeal agar floccose, white at first, becoming yellow, yellow in reverse. Hyphae mostly immersed, hyaline to pale yellow,

smooth walled, 1.5-3 µm diameter.

**Anamorph:** Unknown.

## Other info

**Type & Location:** HOLOTYPE: USA. Illinois: Brown County, Illinois River at Beardstown, a culture fruiting on beechwood, derived from a single ascospore isolated from an ascoma on a submerged twig, CA Shearer, 7 Nov 1987, NY.

**Other Specimens:** USA: Illinois, Mason County, Quiver Creek, on submerged twig, CA Shearer, 10 Aug 1978, CS-617-1, NY.

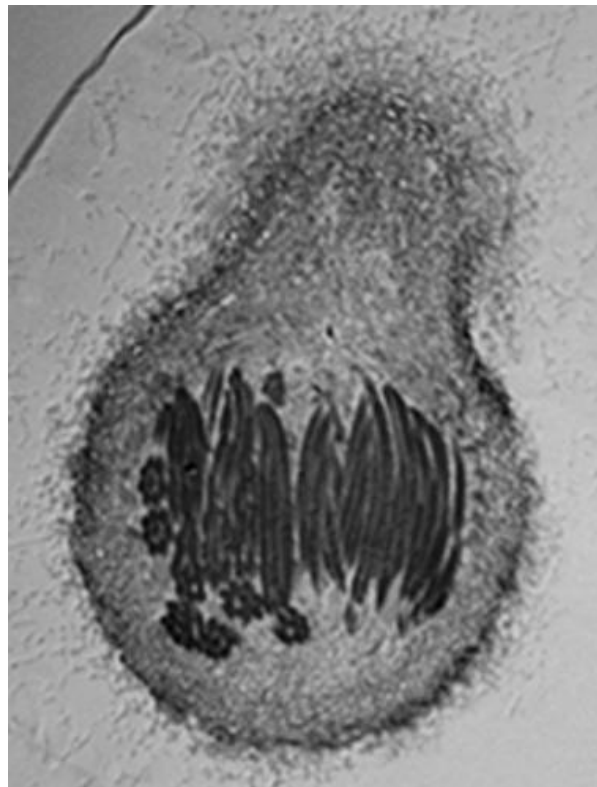
**Substratum:** Wood debris.

**Habitat:** Lotic

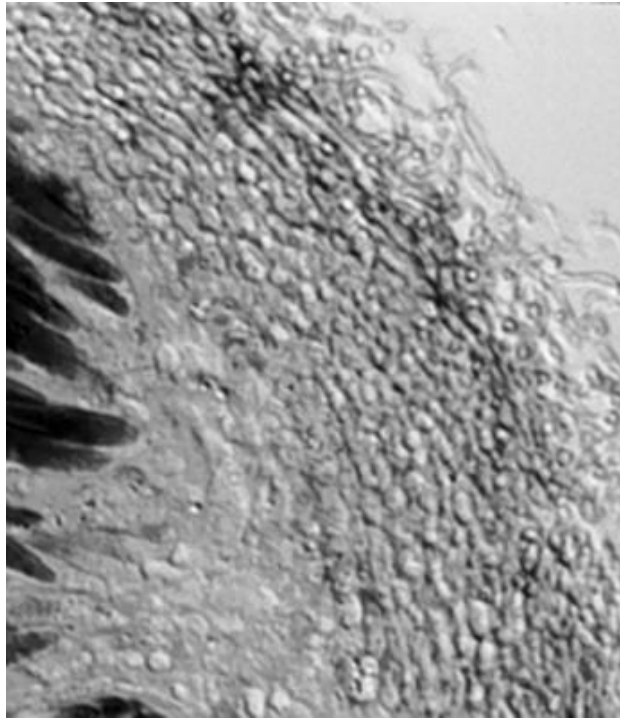
**Distribution:** USA (IL)

**Pertinent Literature:** C.A. Shearer. 1988. *Pseudohalonectria* (Lasiochaeraceae), an antagonistic genus from wood in freshwater. *Canadian Journal of Botany* 67: 1944-1955.

*Pseudohalonectria falcata*  
Ascomata



*Pseudohalonestria falcata*  
Peridium



*Pseudohalonestria falcata*  
Ascus



*Pseudohalonerctria falcata*  
Ascospore











<b><u>Genus</u></b>	<b><u>Species</u></b>	<b><u>Author</u></b>
<i>Pseudohalonectria</i>	<i>lignicola</i>	Minoura et Muroi
<b><u>Class</u></b>	<b><u>Order</u></b>	<b><u>Family</u></b>
Sordariomycetes	Inc. sed.	Magnaporthaceae

Genbank ID: [42149](#)

**Synonymy:** *None*

## Description

<b>Habit:</b>	Saprobic, ascomata immersed or partially immersed in submerged, dead woody debris.	
<b>Ascomata:</b>	Ascomata 227-497 x 243-524 $\mu\text{m}$ , solitary to aggregated, immersed to superficial, pale yellow at first, becoming darkened with age, rostrate, globose to flattened globose.	
<b>Peridium:</b>	Peridium membranous, of textura angularis in face view, 13-15 cell layers thick, outer cells pseudoparenchymatic, darkened yellow and compressed laterally, inner cells pseudoparenchymatic, pale yellow.	
<b>Beak:</b>	Beaks 170-621 x 65-221 $\mu\text{m}$ , long, cylindrical, periphysate, composed of parallel hyphae, outer hyphae ending in enlarged, outwardly directed, subglobose cells.	
<b>Hamathecium:</b>	Paraphyses 108-198 x 3.6-8.4, 1 to 5 septate, longer than asci, wide at base, tapering to a rounded point, thin walled, attached to ascogenous hyphae.	
<b>Ascus:</b>	Asci 90-132 x 11-17.6 $\mu\text{m}$ , unitunicate, cylindrical, straight or sigmoidal, with IKI-negative, thimble-shaped apical apparatus which stains bright blue in acidic aqueous cotton blue, containing eight ascospores in two overlapping fascicles of four, separating at the basal septum from ascogenous hyphae and lying free in venter, lining the base and sides of ascomata.	
<b>Ascospore:</b>	Ascospores 38-75 (x = 62.6) x 3.6-6.6 (x = 5.1), 5 to 11 septate, yellow in mass, becoming orange brown with age, hyaline to pale orange brown in transmitted light, cylindrical with bluntly rounded apices, sometimes allantoid, not constricted at the septa, discharged forcibly or accumulating in a mass at the beak opening.	
<b>Sheath:</b>	None observed.	
<b>Appendage:</b>	None observed.	
<b>Culture:</b>	HUT, ATCC. Colonies on corn meal agar floccose, appressed, white at	

first, becoming pale to lemon yellow, pale yellow in reverse, colony margin even. Hyphae septate, smooth walled, 1-2.5  $\mu\text{m}$  diam, hyaline.

**Anamorph:** None reported.

## Other info

**Type & Location:** JAPAN: Shiga Pref., Lake Biwa, on balsa wood submerged from May 3 to July 30, 1976. HUT 40005.

**Other Specimens:** Too numerous to list; see Database for references.

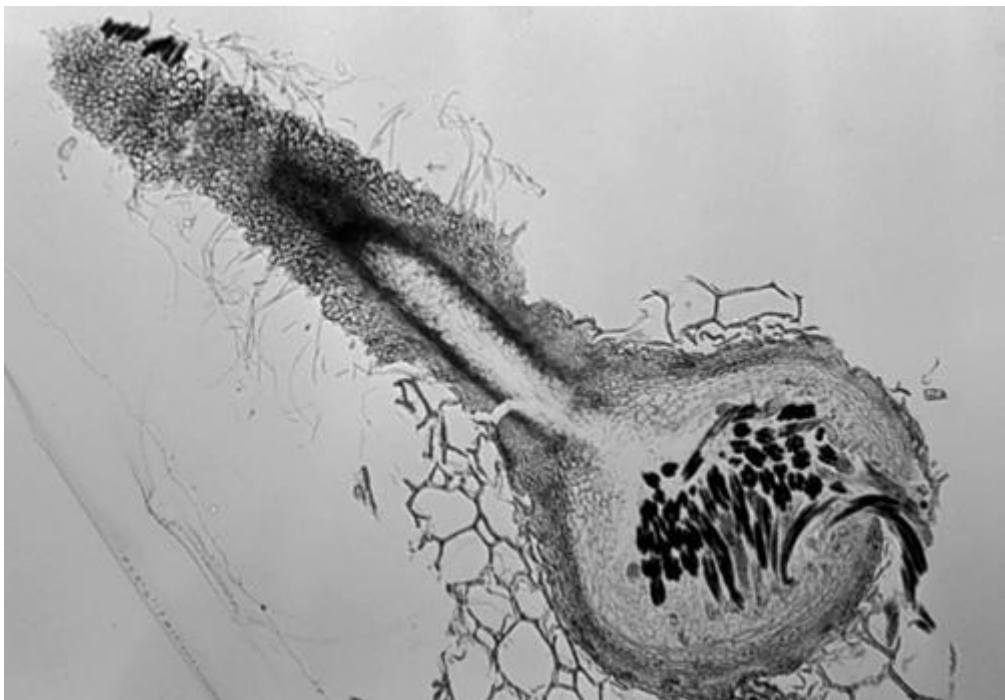
**Substratum:** woody debris; balsa wood, twigs of *Platanus occidentalis* L. *Acer saccharinum* L., *Prunus serotina* Ehrh., unidentified woody debris, rarely herbaceous debris

**Habitat:** lentic, lotic

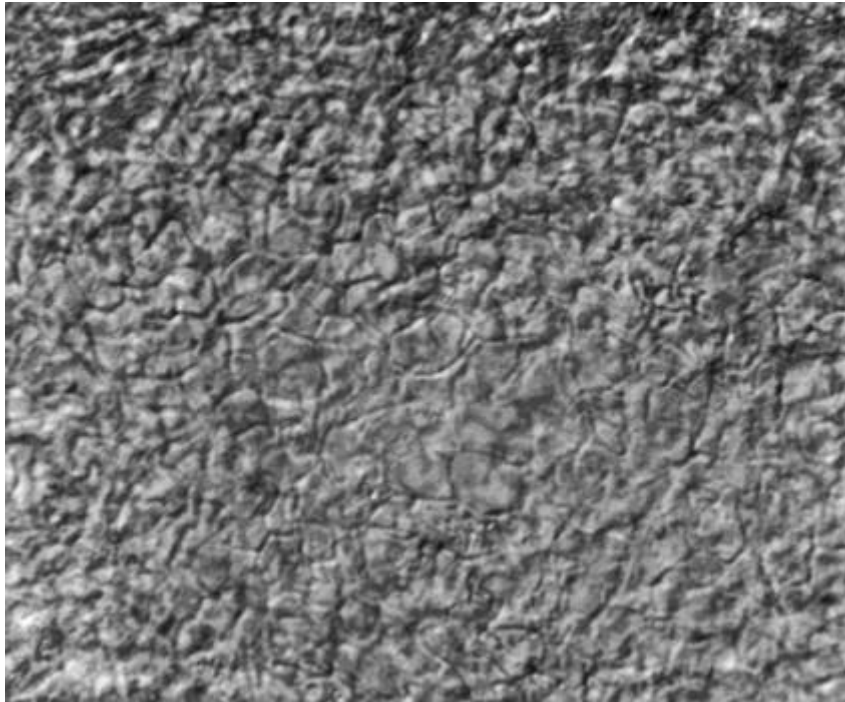
**Distribution:** Japan, USA (IL, IN, IO, MN, WI, MD)

**Pertinent Literature:** Minoura, K. and Muroi, T. 1978. Transactions of the Mycological Society of Japan 19: 129-134. Shearer, CA. 1989. Canadian Journal of Botany 67: 1944-1955.

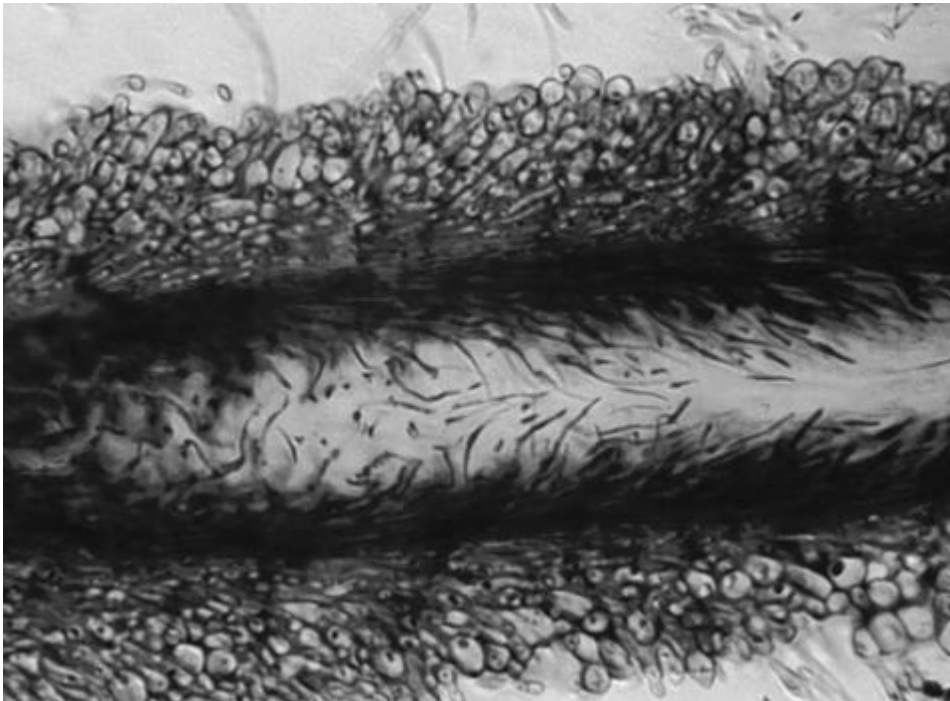
*Pseudohalonectria lignicola*  
Ascomata



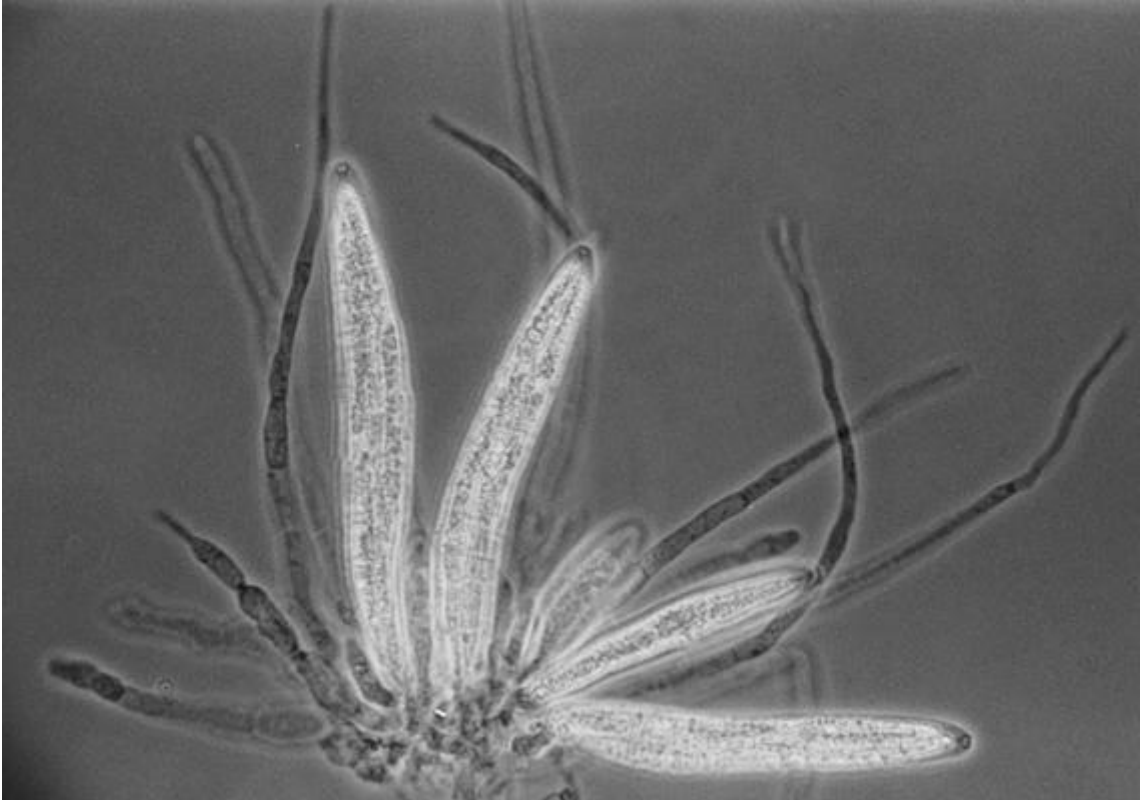
*Pseudohalonectria lignicola*  
Peridium



*Pseudohalonectria lignicola*  
Beak



*Pseudohalonectria lignicola*  
Hamathecium



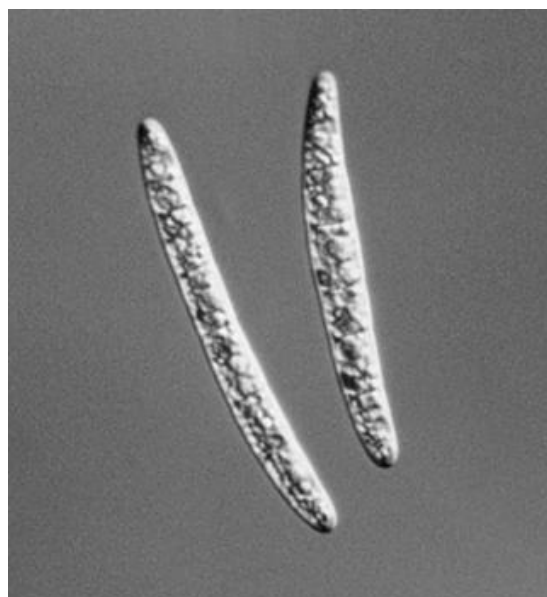
*Pseudohalonectria lignicola*  
Ascus



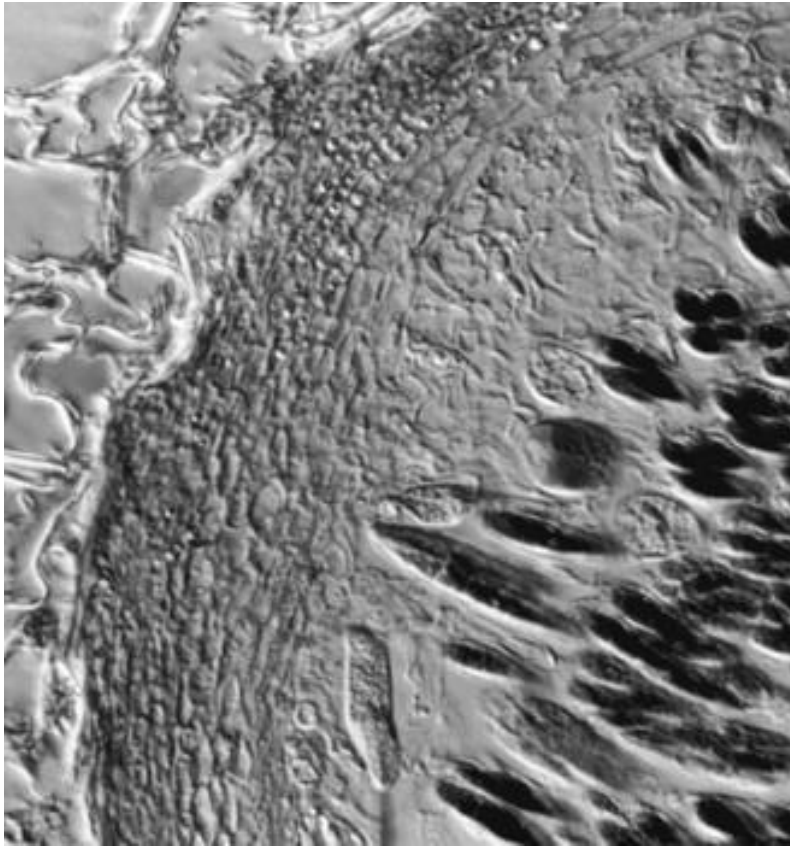
*Pseudohalonectria lignicola*  
Ascospore



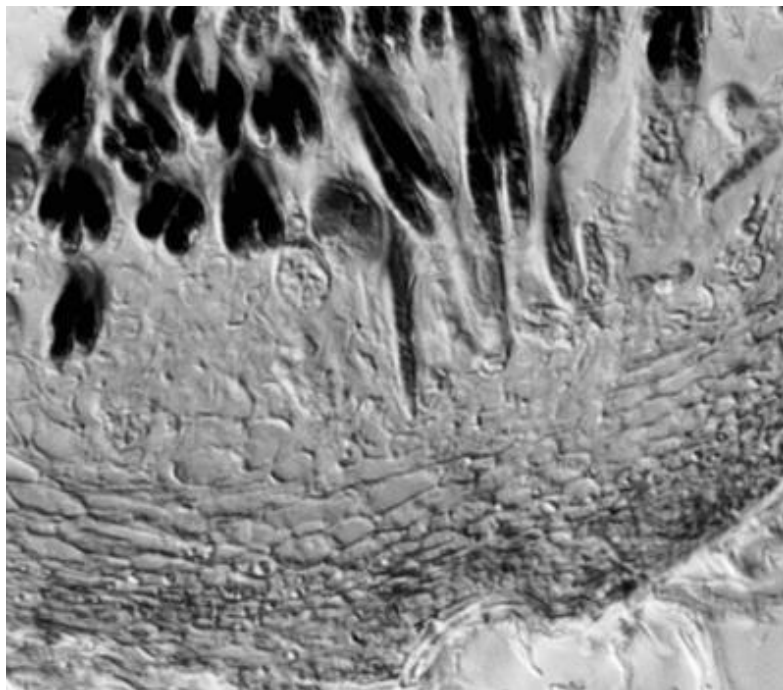
*Pseudohalonectria lignicola*  
Ascospore 2



*Pseudohalonectria lignicola*  
Peridium 1



*Pseudohalonectria lignicola*  
Peridium 2





<b><u>Genus</u></b>	<b><u>Species</u></b>	<b><u>Author</u></b>
<i>Pseudohalonectria</i>	<i>longirostrum</i>	C.A. Shearer
<b><u>Class</u></b>	<b><u>Order</u></b>	<b><u>Family</u></b>
Sordariomycetes	Inc. sed.	Magnaporthaceae

**Synonymy:**

**Description**

**Habit:** Saprobic, ascomata immersed or partially immersed in submerged, dead woody debris.

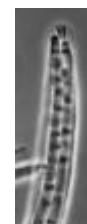
**Ascomata:** Ascomata 178-396 x 267-396  $\mu\text{m}$ , on wood immersed or partially immersed, bright yellow, becoming brownish yellow, rostrate; venter globose to flattened globose, membranous.

**Peridium:** Peridium membranous, of textura angularis of very small-sized cells in face view, outer cells darkened yellow, inner cells pale yellow, pseudoparenchymatic.

**Beak:** Beaks 1683-3712 x 118-168  $\mu\text{m}$ , very long, cylindrical, comprising parallel hyphae terminating in enlarged knob-like cells and covered with patches of long, hypha-like hairs, golden brown at base, pale yellow at the apex, periphysate.

**Hamathecium:** Paraphyses 144-240 x 7.2-9.6  $\mu\text{m}$ , longer than asci, acuminate, 1- to 4-septate, attached to ascogenous hyphae.

**Ascus:** Asci 94-120 x 8.4-12  $\mu\text{m}$ , cylindrical, straight or sigmoidal, containing eight ascospores in a single fascicle, with IKI-negative thimble-shaped apical apparatus, 3-5 x 2  $\mu\text{m}$ , short stalked, separating from ascogenous hyphae at basal septum of ascus prior to ascospore discharge, and lying free in venter cavity.



**Ascospore:** Ascospores 84-105.6 x 3.0-4.0  $\mu\text{m}$ , hyaline to pale yellow, yellow to orange in mass, 4- to 8- septate, filiform, or sigmoid, cells filled with lipid.



**Sheath:** None observed.

**Appendage:** None observed.

**Culture:** ATCC 52674. Colonies on cornmeal agar floccose, mostly immersed, hyaline at first, becoming intensely bright yellow; older regions of colony



darkening, yellow pigment diffusing into the medium, colony reverse intensely yellow. colony margin regular

**Anamorph:** None observed.

## Other info

**Type & Location:** PANAMA. Barro Colorado Island: Shannon Creek. A dried culture on alfalfa stems, isolated from a twig. CA Shearer, Mar 1981, CS-656-1, NY.

**Other Specimens:**

**Substratum:** Wood

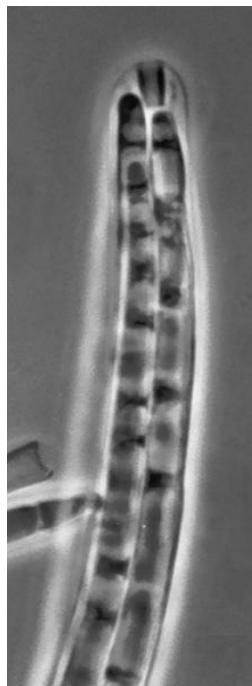
**Habitat:** Lotic

**Distribution:** Panama

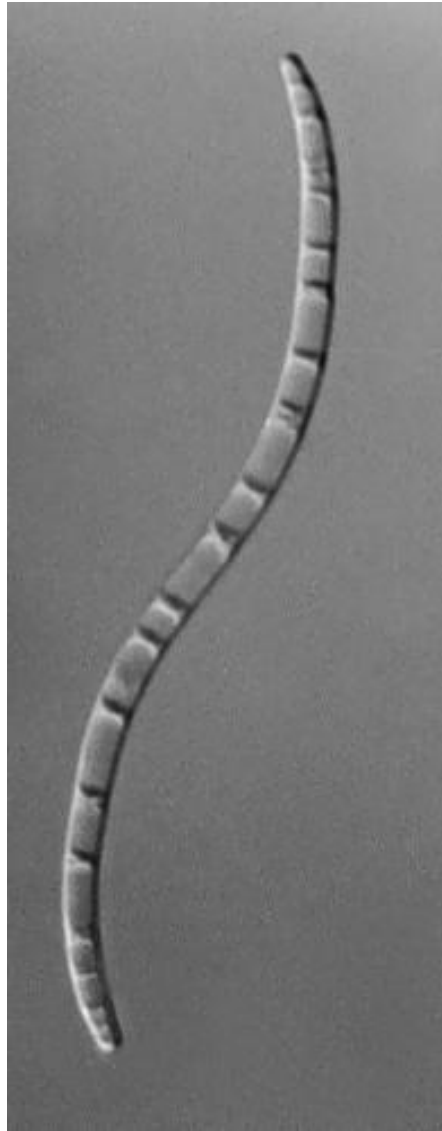
**Pertinent Literature:** C.A. Shearer. 1989. *Pseudohalonectria* (Lasiosphaeriaceae), an antagonistic genus from wood in freshwater. *Canadian Journal of Botany* 67: 1944-1955.

**Comments:** Formed soft-rot cavities on balsa and beechwood in this study, and on ash and cottonwood in another study.

*Pseudohalonectria longirostrum*  
Ascus



*Pseudohalonectria longirostrum*  
Ascospore



<b><u>Genus</u></b>	<b><u>Species</u></b>	<b><u>Author</u></b>
<i>Pseudohalonectria</i>	<i>lutea</i>	C.A. Shearer
<b><u>Class</u></b>	<b><u>Order</u></b>	<b><u>Family</u></b>
Sordariomycetes	Inc. sed.	Magnaporthaceae

MycoBank ID: [136213](#)

**Synonymy:**

## Description

**Habit:** Saprobic, ascomata immersed or partially immersed in submerged, dead woody debris.

**Ascomata:** Ascomata 290-540  $\mu\text{m}$  diam, on wood immersed, yellowish brown, membranous, rostrate, venter globose to subglobose.

**Peridium:** Peridium of textura angularis in face view.

**Beak:** Beaks 300-600 x 160-200  $\mu\text{m}$ , cylindrical, periphysate.

**Hamathecium:** None observed.

### **Ascus:**

Asci 122-192 x 14.4-18  $\mu\text{m}$ , hyaline, cylindrical, with thimble-shaped ascus apparatus, asci separating from ascogenous hyphae and lying free in venter cavity.



### **Ascospore:**

Ascospores 48-68 x 4.8-8.4  $\mu\text{m}$ , hyaline to pale orange, end cells less pigmented than inner cells, orange in mass, ellipsoidal, 5-septate.



**Sheath:** None observed.

**Appendage:** None observed.

**Culture:** ATCC. Colonies on CMA floccose, yellow, becoming greyish yellow with age, dull yellow in reverse, yellow pigment diffuses from colony into the agar; hyphae immersed and superficial.

**Anamorph:** None observed.

## Other info

**Type & Location:** HOLOTYPE: CHILE. Region X: Esteros Llanguehue, from submerged wood collected from a small stream. 26 June 1984, CS-744-1A, NY.

**Other Specimens:** On submerged wood from a stream originating from a thermal spring at Aquas Calientes near Puyehue, Region X, Chile. 13 July 1984, CS-744-2, NY.

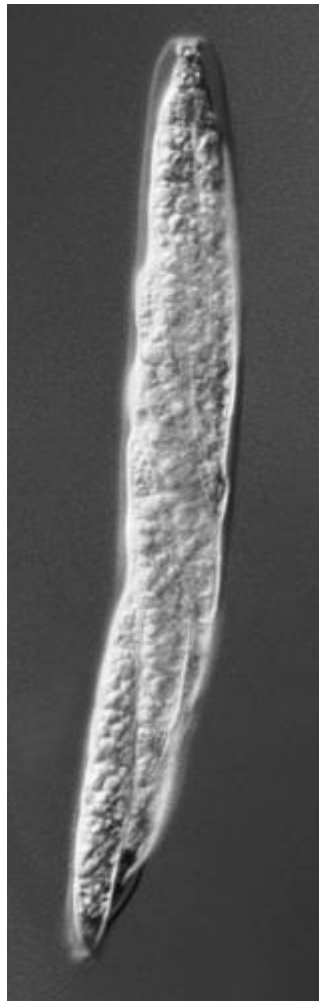
**Substratum:** Wood

**Habitat:** Lotic

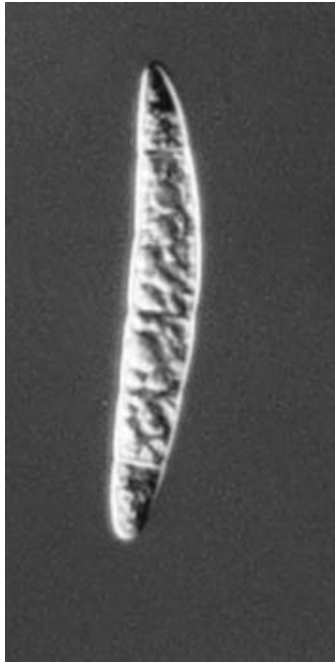
**Distribution:** Chile; USA (WI)

**Pertinent Literature:** Shearer, C.A. 1989. *Pseudohalonectria* (Lasiosphaeriaceae), an antagonistic genus from wood in freshwater. *Canadian Journal of Botany* 67: 1944-1955.

*Pseudohalonectria lutea*  
Ascus



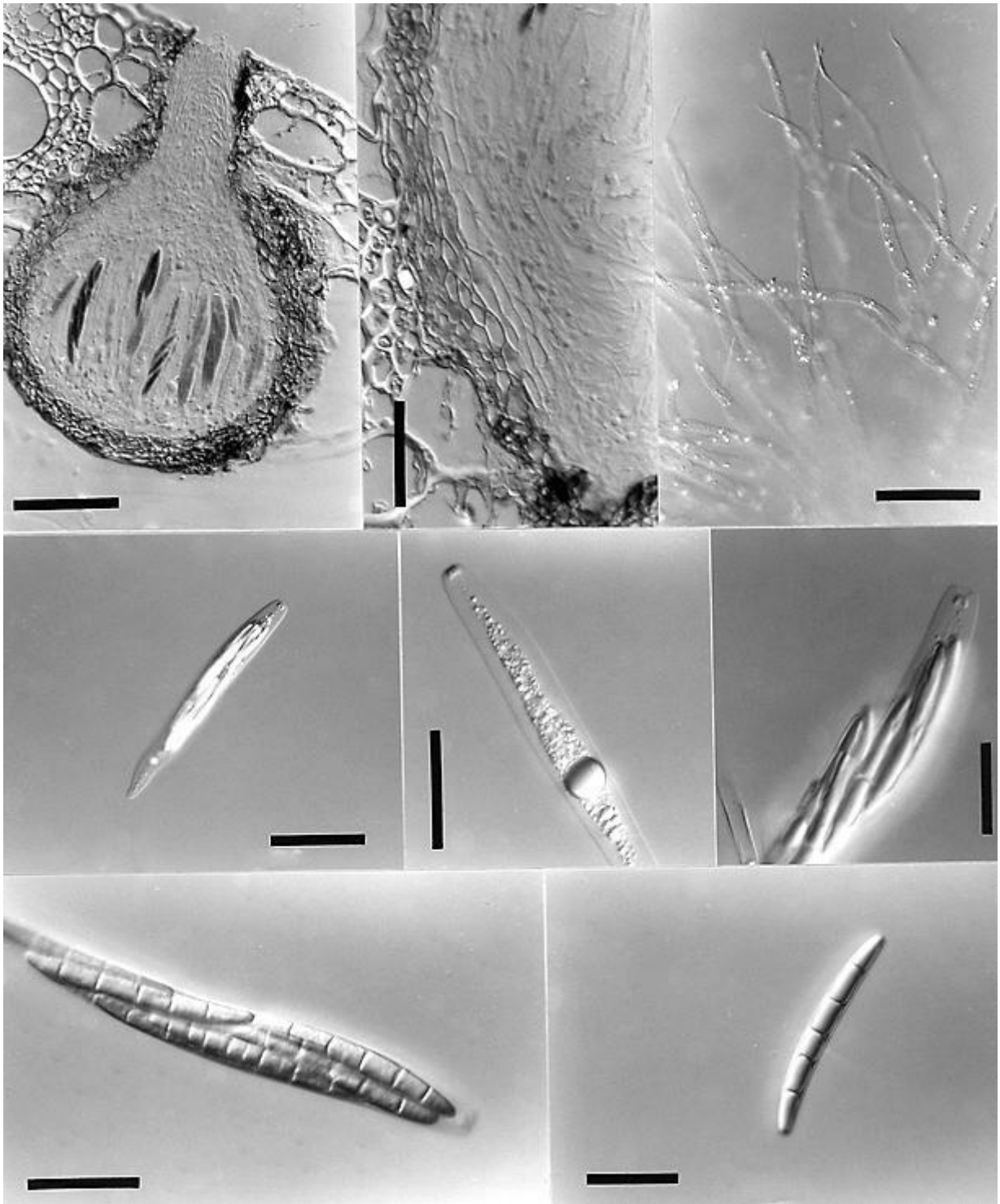
*Pseudohalonectria lutea*  
Ascospore



*Pseudohalonectria lutea*  
Ascospore 2









*Pseudohalonectria lutea*  
Plate from Fallah & Shearer 2001.



<b><u>Genus</u></b>	<b><u>Species</u></b>	<b><u>Author</u></b>
<i>Pseudohalonectria</i>	<i>phialidica</i>	C.A. Shearer
<b><u>Class</u></b>	<b><u>Order</u></b>	<b><u>Family</u></b>
Sordariomycetes	Inc. sed.	Magnaporthaceae

**Synonymy:**

**Description**

- Habit:** Saprobic, ascomata immersed or partially immersed in submerged, dead woody debris.
- Ascomata:** Ascomata 129-366 x 257-426  $\mu\text{m}$ , on wood solitary to somewhat aggregated, immersed, partially immersed, or superficial; venter flattened globose, yellow becoming greyish yellow. 
- Peridium:** Peridium membranous, of textura angularis in surface view, brownish yellow, inner layer of laterally compressed hyphae, yellow, paler towards venter cavity, cells of outer layer less compressed and surrounded on the outside by loosely interwoven hyphae bearing orange-brown amorphous material. 
- Beak:** Beaks 614-1946 x 89-129  $\mu\text{m}$ , beaks cylindrical, long, periphysate, wall comprising an inner layer of parallel hyphae with elongated cells, middle layer of outwardly divergent hyphae, and an outer layer of loosely interwoven hyphae on which orange-brown amorphous material is deposited. 
- Hamathecium:** Paraphyses 132-168  $\mu\text{m}$  long, 4.8-9.6  $\mu\text{m}$  wide at base, longer than asci, broad at base and tapering to a gently rounded point, attached to ascogenous hyphae. 
- Ascus:** Asci 82-99 x 5-7.9  $\mu\text{m}$ , pale yellow, cylindrical, straight or sigmoid, with IKI-negative thimble shaped apical apparatus, 3.2-5 x 2-3.5  $\mu\text{m}$ , that stains bright blue in slightly acidic aqueous cotton blue; detaching from ascogenous hyphae at the basal septum and lying free in venter cavity. 
- Ascospore:** Ascospores 64.5-79 x 2  $\mu\text{m}$ , hyaline, yellow becoming orange in mass, filiform, slightly curved or sigmoid, 0 to 4 septate, with oil droplets interrupted at regular intervals by nonrefractile regions. 
- Sheath:** None observed.
- Appendage:** None observed.
- Culture:** ATCC. Colonies on cornmeal agar floccose, appressed, cream colored, becoming tinged with grey, colony reverse yellow. Hyphae septate, smooth

walled, branched, hyaline to pale yellow, 1-3.5  $\mu\text{m}$  in diameter.

**Anamorph:**

Hyphomycetous, phialidic. Phialides hyaline, micronematous, flask shaped, 9.9-26.7 x 2-4  $\mu\text{m}$ , collarette 2-3  $\mu\text{m}$  wide. . Conidia allantoid, hyaline, nonseptate, 2-4 x 0.5-1  $\mu\text{m}$ .



**Other info**

**Type & Location:**

USA. Illinois: Vermilion County, Salt Fork of the Vermilion River, A dried culture grown on balsa wood, derived from a single ascospore from an ascoma on submerged woody debris, C. A. Shearer, CS-719-1, Apr 1983. NY

**Other Specimens:**

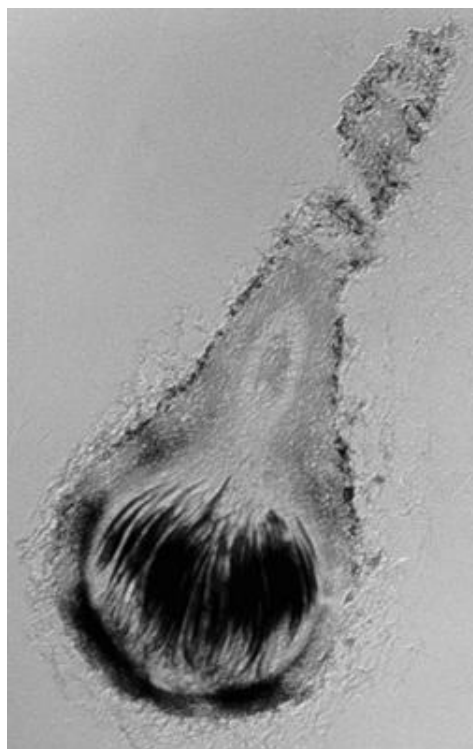
**Substratum:** Wood

**Habitat:** Lotic

**Distribution:** USA (IL)

**Pertinent Literature:** Shearer, C.A. 1989. Pseudohalonectria (Lasiosphaeriaceae), an antagonistic gen

*Pseudohalonectria phialidica*  
Ascomata

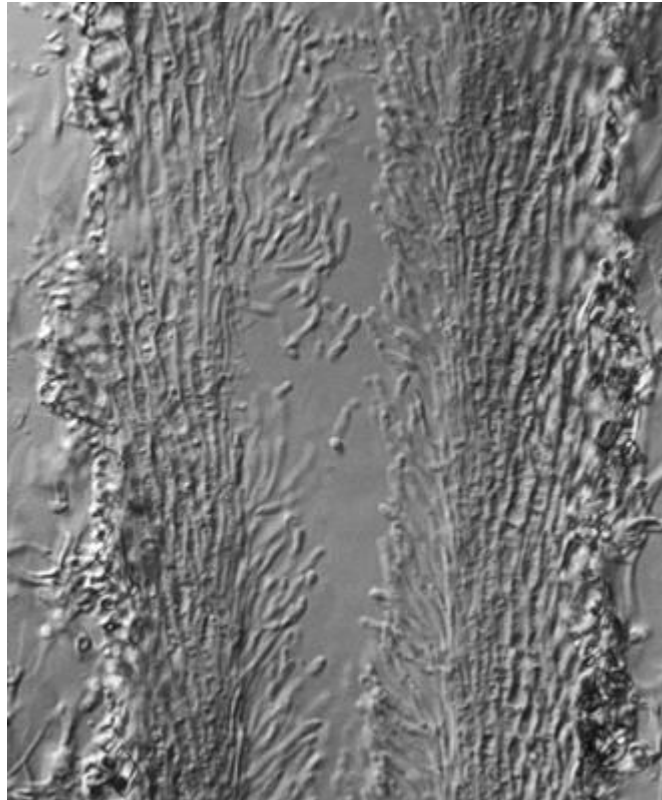




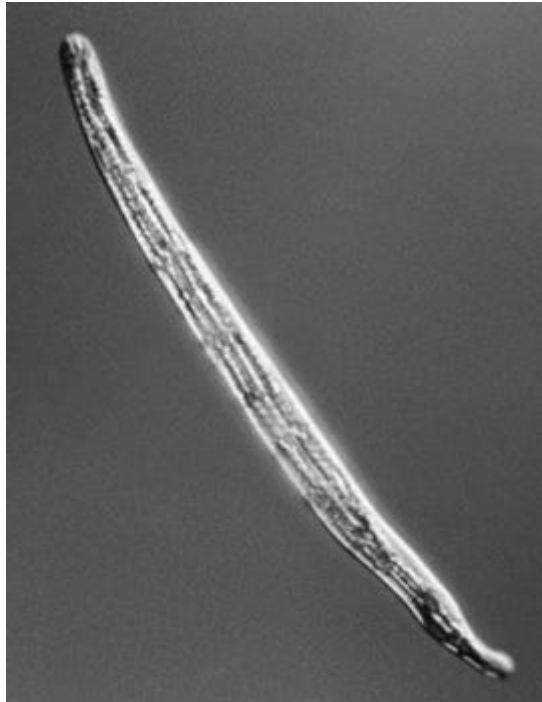
*Pseudohalonectria phialidica*  
Peridium



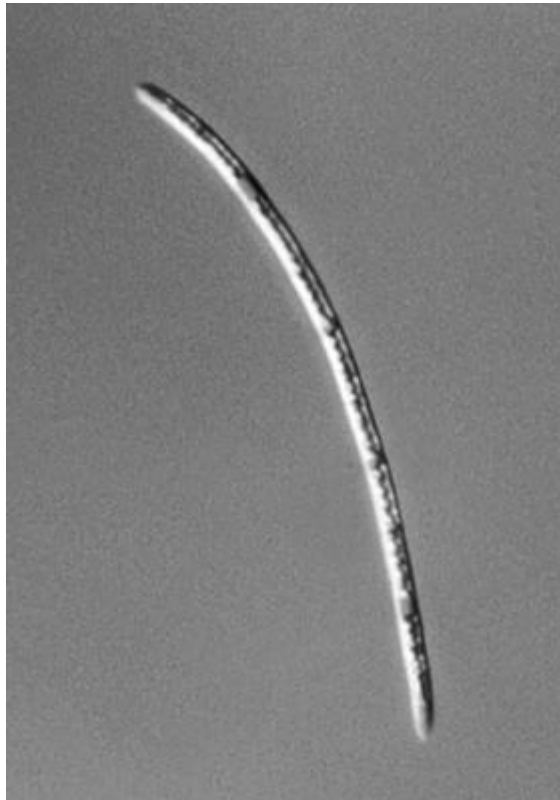
*Pseudohalonectria phialidica*  
Beak



*Pseudohalonectria phialidica*  
Ascus



*Pseudohalonectria phialidica*  
Ascospore



*Pseudohalonectria phialidica*  
Anamorph

