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Key: *Psathyrella* – non-European species

Last update: 17.01.19

Updated: 18.03.15 (first provisional version created), 01.04.15 (A 1/1* changed, *P. griseola* excluded, different sequence from A18), 03.04.15 (drawings added), 04.05.15 (*P. cineraria* = *Coprinopsis*), 08.02.16 (data at *P. coprinoceps* changed, different sequence from A 13), 25.02.16 (some data changed: *P. glaucescens*, *P. efflorescens*, *P. efflorescens* deleted from part B, different sequence from B13, *P. armeniaca* integrated in part A, different sequence from A15, *P. tiarella* integrated in part A, different sequence from A21), 26.02.16 (*P. pusilla*, *P. naivashaiensis* added, different sequence from A1, *P. magambica*, *P. moshiana*, *P. ovaticystis*, *P. usambarensis* added, different sequence from B13), 17.03.16 (*P. floccosa*, *P. singeri*, *P. tuberculata*, *P. vanhermanii* added, different sequence in part A), 13.01.17 (*P. aequatoria*, *P. secotioides*, *P. marthae*, *P. nothomyrciae* added, different sequence from A15), 14.01.17 (*P. hesleraffinis*, *P. moseri*, *P. subconocybooides*, *P. subprona*, *P. patagonica*, *P. tilcariensis*, *P. apora*, *P. dactylocystis*, *P. subandina*, *P. polycystidiosa*, *P. fascicularis*, *P. acutissima*, *P. tristis*, *Cystoagaricus squarrosiceps* added, different sequence from B11), 17.04.17 (*P. pallidispora*, *trigonospora* added, different sequence from A26 and B10, many changes from A26), 01.08.17 (*P. striatoannulata* added, different sequence from B16), (*P. cacao* und *P. albipes* added, different sequence from A1*), *P. oboensis* added, different sequence from B18*), 15.10.17 (*P. subspadiceogrisea* added, different sequence from B22*), 18.06.18 (*P. conica*, *P. jilinensis*, *P. mycenoides*, *P. subsingeri* added, many changes), 17.01.19 (*P. aberdarensis* added in A20*, different sequence from A20).

Preface:

Not excluded are *P. gramina* KALAMEES (Uzbekistan), *P. badhyzensis* KALAMEES (Turkmenistan), the most species described in SMITH (1972), *P. aculeata* PATRICK & BARROWS (USA, New Mexico), *P. aspenensis* MITCHEL & A. C. SM. (USA), *P. segregis* SINGER (USA), as well as numerous species whose description has not yet been seen.

The following species were omitted, because the descriptions are present, but the data are too sparse.

P. janauariensis SINGER: C. -15 mm broad. Sp. 6,7-7,5 (-8,2) x 4,3-4,8 µm, ellipsoid, ovoid, laterally slightly phaseoliform. Ch. ca. 23 x 8 µm, utriform. Pl. unclear. Dead wood and leaf litter, forest ("Várzea forest"), Brazil.

P. plumigera (BERK. & M. A. CURTIS) A. C. SM.: C. -12 mm broad. V. white, scaly. Sp. 8-9 x 4,5-5 µm, becoming hyaline in KOH. No further data. Pieces of wood, Cuba.

Used abbreviations:

C. = cap, Ch.= cheilocystidia, L. = lamellae, Pl. = pleurocystidia, P. = Psathyrella., Sp. = spores, St. = stipe, V. = veil, Syn. = synonym(s)

Used symbols:

| | | | | | | H ₂ O + | - H ₂ O | N ₂ + | + KOH |
|--------------|-----------------|-----------------------|----------------------|--------------------|--------------|--------------------|--------------------|------------------|-------|
| Sp. hyaline | Sp. very bright | Sp. moderately bright | Sp. dark (subopaque) | Sp. black (opaque) | wet | dry, drying | dung, fertilized | in KOH | |
| | | | | | | | | | |
| soil, litter | sandy soil | buried wood | stumps | unclear | L.edge white | L.edge pinkish | without clamps | Pl. absent | |
| | | | | | | | | | |

1 Pleurocystidia absent.

A

1* Pleurocystidia present.

B

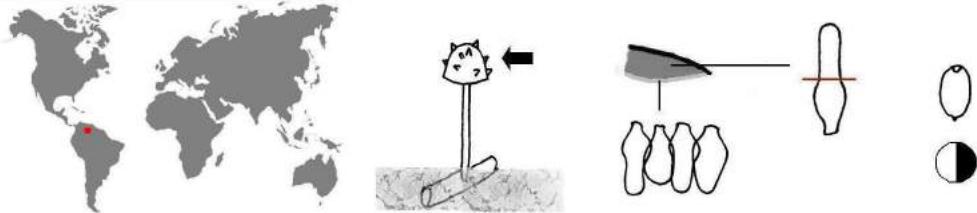
A – Pleurocystidia absent

1 Maximum spores length < 10 µm.

2

| | | |
|-----------|--|-----------|
| 1* | Maximum spores length $\geq 10 \mu\text{m}$. | 30 |
| 2 | (1) Spores maximum length $7,5 \mu\text{m}$. | 3 |
| 2* | Spores longer. | 11 |
| 3 | (2) Cap up to 15 mm broad. | 4 |
| 3* | Cap up to 30 mm broad. | 8 |
| 4 | (3) Cheilocystidia mostly utriform. | 5 |
| 4* | Cheilocystidia only clavate. | 6 |
| 5 | (3) Veil as white pyramidal warts. | |

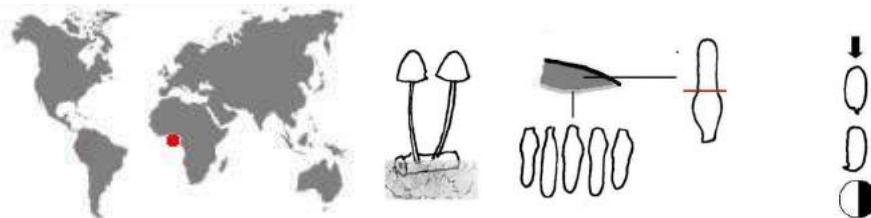
C. -9 mm broad. Sp. 5-7 x 4-5 μm , ovoid, reddish. Ch. 25-35 x 11-16 μm , utriform. Dead wood, Venezuela.



P. acutisquamosa DENNIS

5* **Veil absent.**

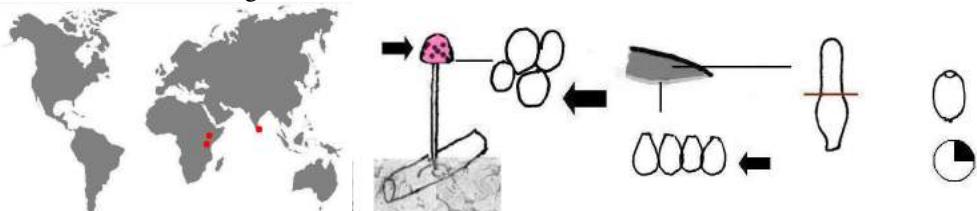
C. -15 mm broad. Sp. 5,7-6,8 x 3,5-4,8 μm . Ch. 16,5-29 x 8-12 μm . Dead wood, banana remnants, São Tomé.



P. cacao DESJARDIN & B. A. PERRY

6 **(4) Spores pale, cap with pinkish tones.**

C. -10 mm broad, rarely larger, gray with a shade of pink, V. white and granular, volatile. Sp. 5,5-7 x 3,7-5 μm , ellipsoid, amygdaloid, ovoid, subglobos, pale yellowish brown. Ch. only clavate. Dead wood, Sri Lanka, Tanzania, Uganda.



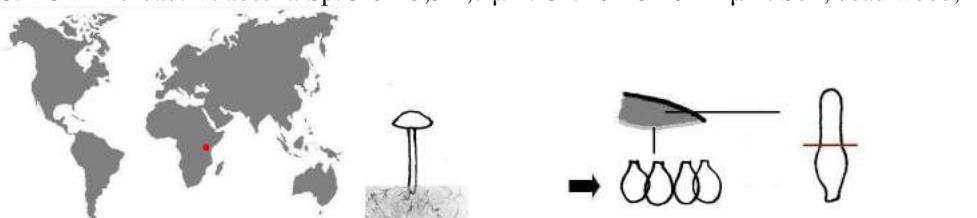
P. efflorescens (BERK. & BROOME) PEGLER
(Syn.: *Psathyra asceva* (BERK. & BROOME) SACC.)

6* **Spores darker, cap without pinkish tones.**

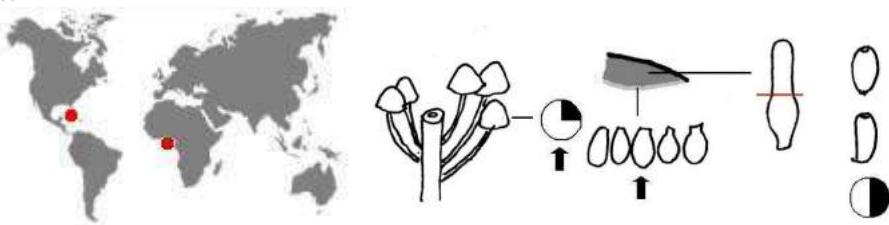
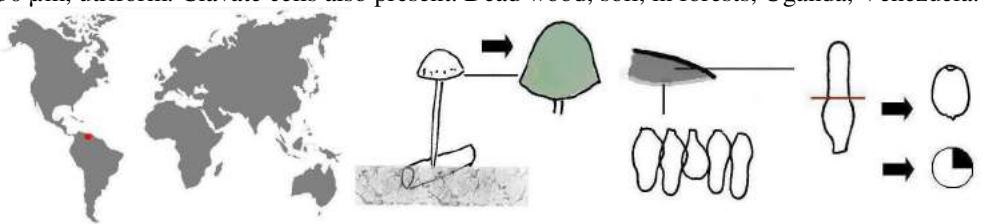
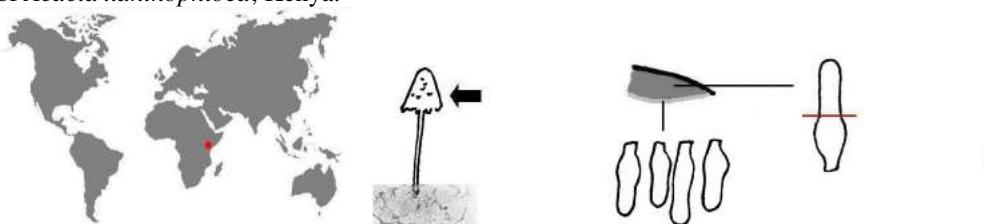
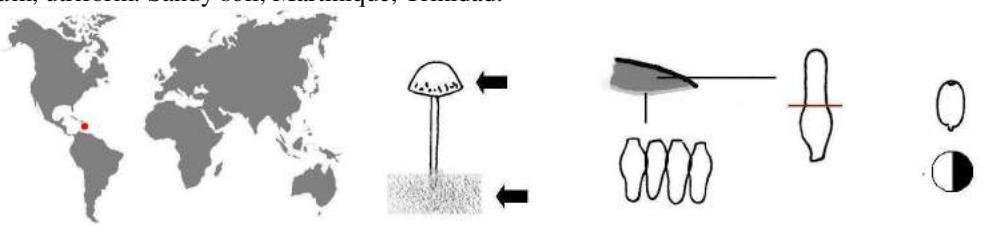
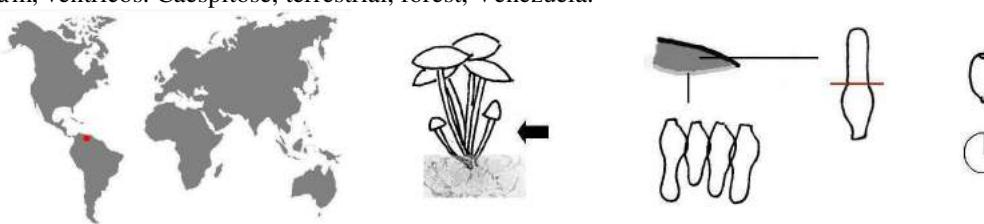
7

7* **(6) Cap young white, later grey.**

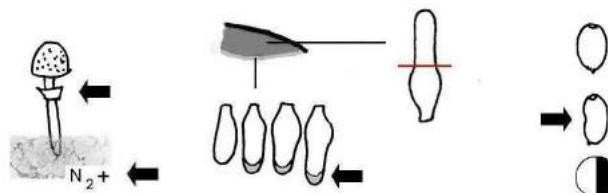
C. -15 mm broad. V. absent. Sp. 5-6 x 3,5-4,7 μm . Ch. 13-18 x 9-11 μm . Soil, dead wood, Tanzania.



P. pusilla PEGLER

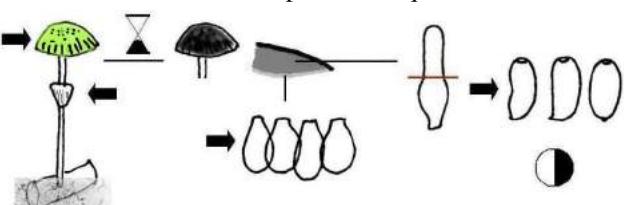
- 7*** **Cap white, pale yellowish or orange grey.**
 C. -10 mm broad. V. very sparse. Sp. 6-7,2 x 4-5,2 μm . Ch 19-32 x 9-13 μm . Dead wood, Jamaica, São Tomé.
- 
- P. albipes* (MURILL) A. H. SM.
- 8 (3) Cap with olive shades.**
 C. -50 mm broad. V. white, fibrillose. Sp. 5-6 x 3-4,5 μm , ovoid, pale purplish brown, Ch. 25-42 x 12-30 μm , utriform. Clavate cells also present. Dead wood, soil, in forests, Uganda, Venezuela.
- 
- P. glaucescens* DENNIS
- 8* Cap without olive shades.**
- 9 (8) Cap sharply conical.**
 C. -25 mm broad. V. distinct. Sp. 6,5-7,5 x 4,5-5,3 μm . Ch. 30-42 x 8-14 μm . Roots and litter of *Acacia xanthophloea*, Kenya.
- 
- P. naivashaiensis* PEGLER
- 9* Cap flatter.**
- 10 (9) Veil pale gray.**
 C. -30 mm broad. V. sparse. Sp. 5-7 x 3-4,5 μm , ovoid, ellipsoid, pale reddish brown. Ch. 20-30 x 8-12 μm , utriform. Sandy soil, Martinique, Trinidad.
- 
- P. erinensis* DENNIS
- 10* Veil not so.**
 C. -30 mm broad. V. visible only young. Sp. 6-6,5 x 3,5-4 μm , ellipsoid, pale brown. Ch. 25-40 x 12-15 μm , ventricos. Caespitose, terrestrial, forest, Venezuela.
- 
- P. avilana* DENNIS

- 11 (2) Stipe with annulus. 12
 11* Stipe without annulus. 15
 12 (11) Cheilocystidia apically often filled with amorphous, in Congo red colorable substance. C. -30 mm broad. V. whitish to brownish, flaky. Sp. (5,7-) 7,5-8 x 3,1-3,8 (-5), fading in KOH. Ch. 22-37,4 x 19,5-14,4 (-16,5) μm , utriform, sublageniform, lageniform, sometimes subcapitate. Dung, India.



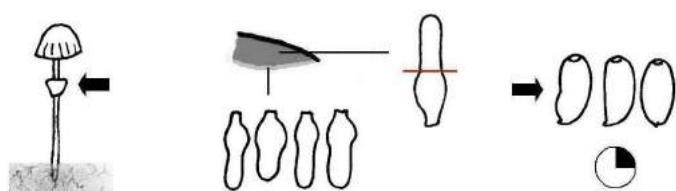
P. fimbicola ATRI, MUNCHURI KAUR & AMANDEEP KAUR

- 12* Cheilocystidia otherwise. 13
 13 (12) Cap greenish, Cheilocystidia only clavate. C. -40 mm broad, young greenish. V. distinct, roundish patches. St. with persistent annulus. Sp. (5,5-) 6-8 x (3-) 4-4,6 μm . Ch. 16-32 x 9-12 μm . Dead Wood, Guadeloupe, Martinique.



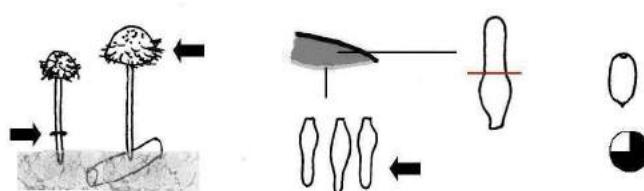
P. tuberculata (PAT.) A. H. SMITH

- 13* Cap and cheilocystidia otherwise. 14
 14 (13) St. with persistent annulus, veil made of globose cells. C. -50 mm broad. V. brownish, volatile. Sp. 6-8 x (2-) 3-4,5 μm . Ch. 23-45 x 8-17 μm , utriform, lageniform, ventricose fusoid. Soil, Costa Rica, Cuba, Jamaica, Martinique, Trinidad, India (?).



P. vanhermanii A. H. SM.

- 14* St. with deep annular zone, veil otherwise. C. -35 mm broad. V. distinct. St. young with annular zone. Sp. 7,3-8,2 x 4,1-4,7 μm , germ pore partly indistinct. Ch. 38,2-41 x 11,8-13,7 μm , utriform. Humus, pieces of wood in forests, Korea.

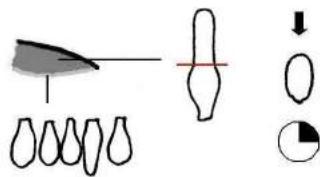
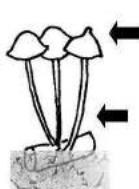


P. pervelatoides S. J. SEOK & Y. S. KIM

- 15 (11) Spores without germ pore. 16
 15* Spores with germ pore, but sometimes indistinct. 23
 16 (15) Cap up to ca. 40 mm broad. 17
 16* Cap up to ca. 60 mm broad. 22
 17 (16) Spores strikingly pale. 18
 17* Spores darker. 21

18 (17) Spores grey to pale brownish.

C. – 15 mm broad, often with a papilla. V. unknown. Sp. 7-8 x 4-5 μm . Ch. 13-32 x 7,5-17 μm , variously clavate. Caespitose on dead wood, Ecuador.



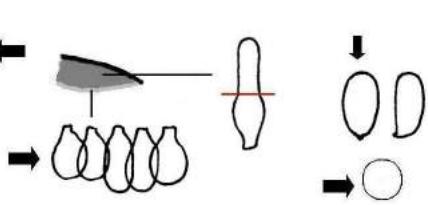
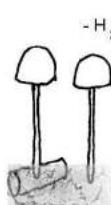
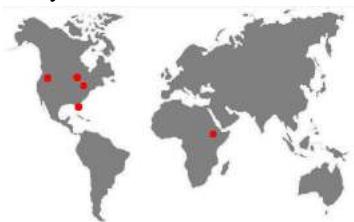
P. aequatoriaae SINGER

18* Spores subhyaline to pale yellowish.

19

19 (18) Spores up to 5,5 mm broad.

C. – 30 mm broad. V. minimal. Sp. 6-8 (-9) x 3,8-5 (-5,5) μm . Ch. 18-35 x 7-22 μm , mostly clavate or subcylindrical. Soil, dead wood, Ethiopia, USA.



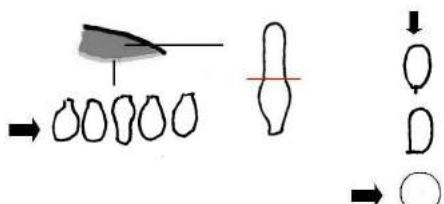
P. singeri A. H. SM.

19* Spores only up to 5 μm broad.

20

20 Cap up to 40 mm broad, veil sparse and volatile.

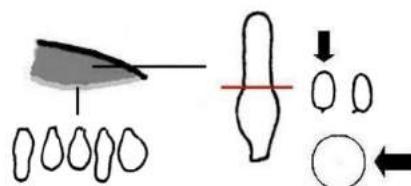
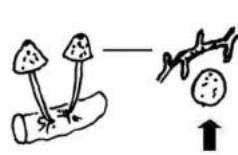
Sp. 5,8–7,8 (-8,8) x 4–4,4 (-5) μm . Ch. utriform, sphaeropedunculat, clavate, fusiform. Soil, in forests, China, Slovenia, Japan..



P. subsingeri T. BAU & J.Q. YAN

20* Cap up to 10 mm broad, veil distinct, persistent.

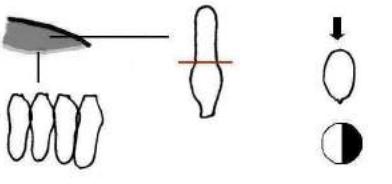
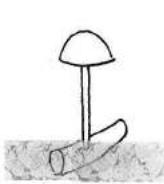
Sp. 7,5-8 (8,8) x 4,5-5 μm . Ch. utriform, sphaeropedunculat, clavate. Dead wood, Kenya.



P. aberdarensis A. MELZER, KIMANI & R. ULLRICH

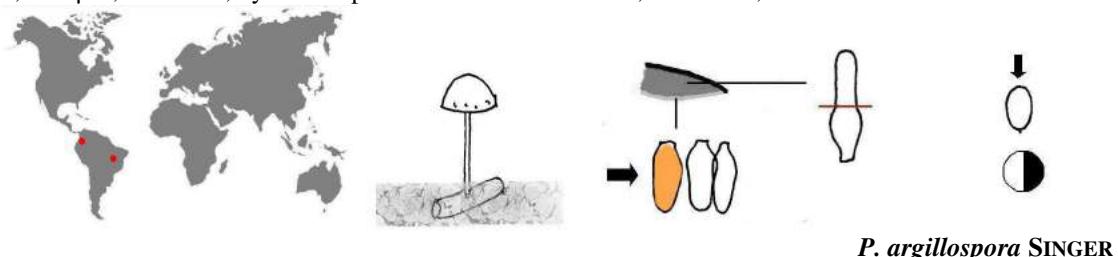
21 (17) Spores with callus, cheilocystidia hyaline.

C. -30 mm broad. V. absent. Sp. 7-8,7 x 4,7-5,7 μm , ellipsoid. Ch. 28,5-40 x 8,5-14,3 μm , utriform. Dead hardwood, Brazil.



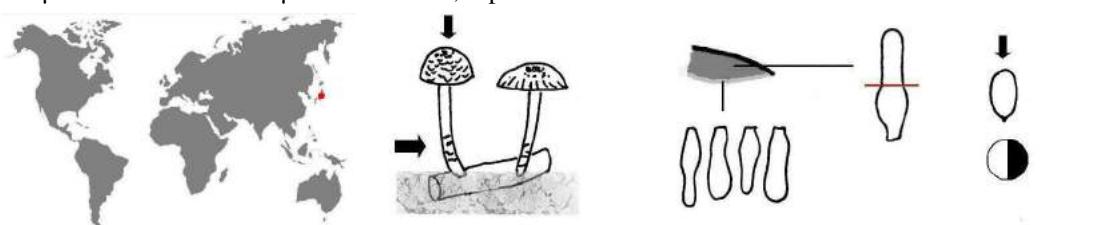
P. lignatilis SINGER

- 21* Spores without callus, cheilocystidia partly pale brownish.
 C. -33 mm broad. V. sparse. Sp. 7-9 x 4-5 μm , ellipsoid, pale brownish to gray brownish. Ch. 20-35 x 8,5-15 μm , vesiculos, hyaline to pale brownish. Dead wood, Colombia, Brazil.



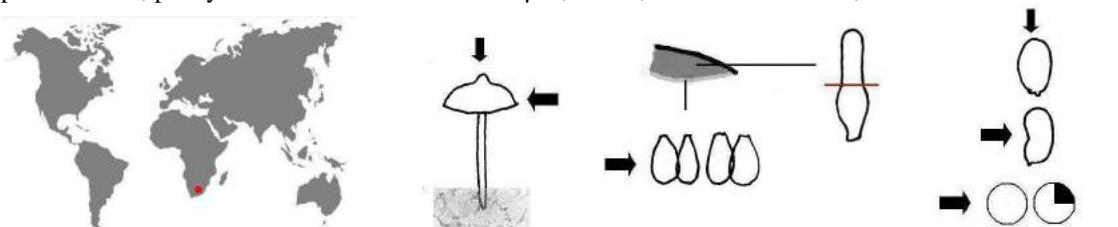
P. argillospora SINGER

- 22 (16) Cheilocystidia utriform.
- C. -60 mm broad. V. young strongly developed, grey, rapidly disappearing. St.base scaly. Sp. 6,5-8,5 x 4-5 μm . Ch. 25-50 x 5-18 μm . Dead wood, Japan.



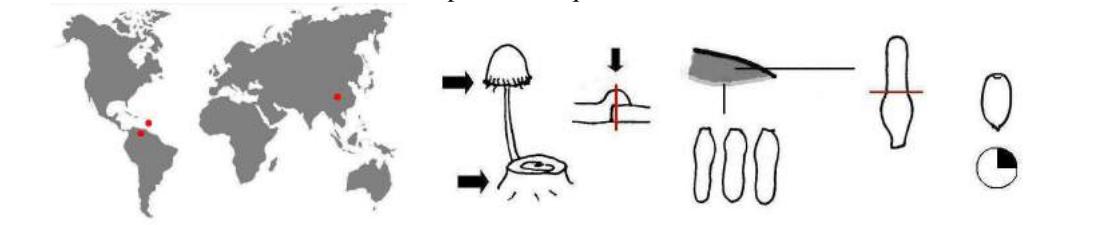
Coprinopsis cineraria (HAR. TAKAHASHI) ÖRSTADIUS & E. LARSS.
 (Syn.: *P. cineraria* HAR. TAKAHASHI)

- 22* Cheilocystidia clavate.
- C. -60 mm broad. V. unknown. Sp. (6-) 7-9 x (4-) 4,5-5 μm , ellipsoid, amygdaloid, laterally phaseoliform, pale yellowish. Ch. 25-35 x 12-13 μm , saccat, clavate. Terrestrial, South Africa.



P. varicosa A. PEARSON

- 23 (15) Clamps absent.
- C. -30 mm broad. Sp. 5-8 x 3,5-6 μm , ellipsoid. Ch 21-40 x 8-14 μm , utriform to lageniform. Terrestrial, dead wood, China?, Guadeloupe, Martinique, Venezuela.



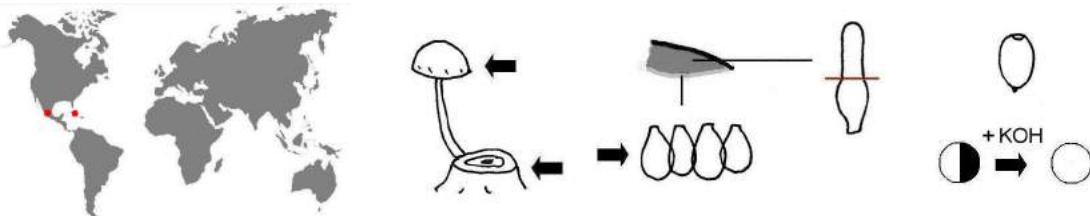
P. araguana DENNIS

- 23* Clamps present.

24

24 (23) Spores becoming hyaline in KOH.

C. ~30 mm broad, with purple color, dry white. V. sparse. Sp. 7-8 x 4-5 μm , ellipsoid, ovoid, truncat, in KOH brown, later almost hyaline. Ch. 22-28 x 9-14 μm , clavate. Stumps of *Roystonia*, Cuba, Mexiko.



P. roystoniae (EARLE) A. C. SM.

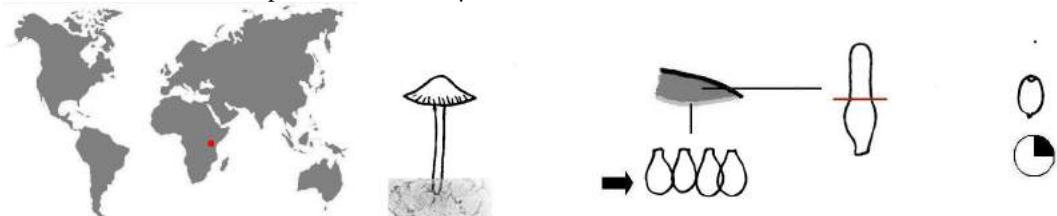
24* Spores not so. 25

25 (24) Cheilocystidia only clavate. 26

25* Cheilocystidia not only clavate. 28

26 (25) Spores strikingly pale.

C. ~60 mm broad. V. ? Sp. 6,5-8 x 4,5-5,5 μm . Debris, Tansania.

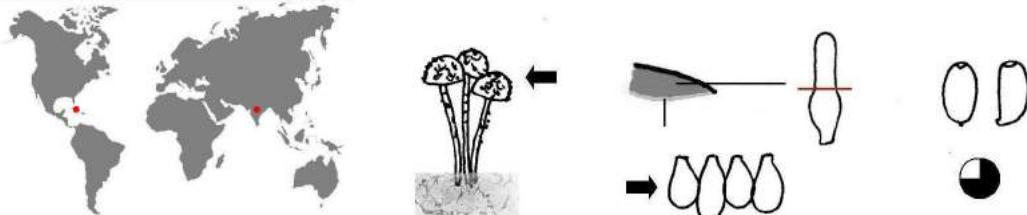


P. armeniaca PEGLER

26* Spores not strikingly pale. 27

27 (26) Velum strongly developed.

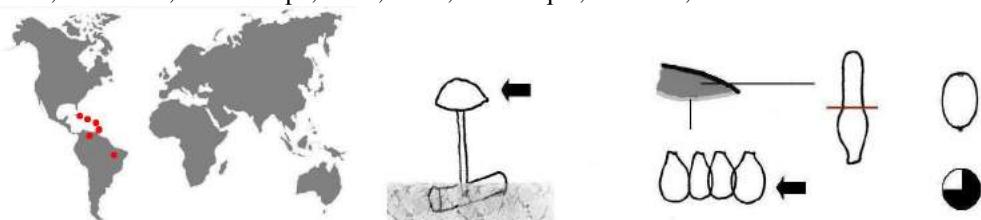
C. ~40 mm broad. Sp. 6-8 x 4-5 μm . Ch. 18-30 x 11-15 μm , clavate, cylindrical. Soil, Cuba, India.



P. floccosa (EARLE) A. H. SM.

27* Veil absent.

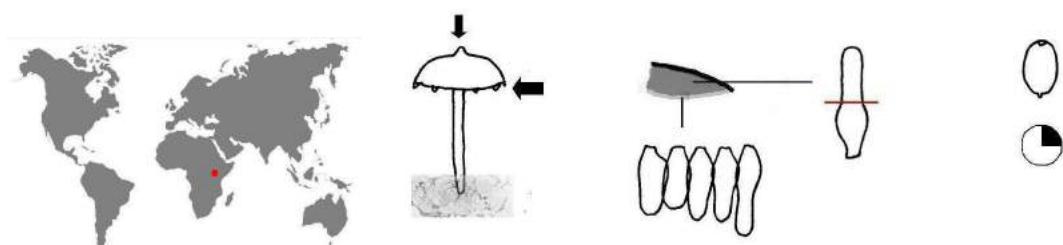
C. ~25 mm broad. Sp. 6-8,5 x 3,5-4,8 μm , ellipsoid, germ pore small, sometimes absent. Dead wood, Brazil, Dominica, Guadeloupe, Haiti, Cuba, Martinique, Trinidad, Venezuela.



P. coprinoceps (BERK. & M. A. CURTIS) DENNIS

28 (25) Spores pale brownish, germ pore indistinct.

C. ~50 mm broad. V. young at C. margin distinct. Sp. 5,5-8,5 x 3,7-5,2 µm, ellipsoid. Ch. 13,5-34 x 8,5-11,5 µm, crowded. Leaf litter, Uganda.



P. atroumbonata PEGLER

28* Spores darker, germ pore distinct.

29

29 (28) Spores reddish brown.

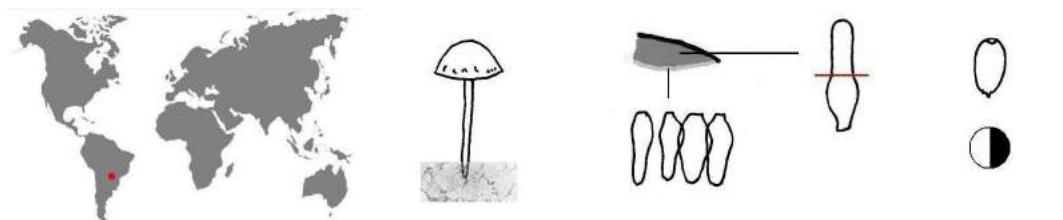
C. ~50 mm broad. V. unknown, probably absent. Sp. 7,5-9,2 x 4-5,5 µm, ellipsoid. Ch. 21-35 x 7-10,5 µm, utriform, sublageniform, clavate. Terrestrial, dead wood, Uganda.



P. glandispora PEGLER

29* Spores sepia.

C. ~42 mm broad. V. white and volatile. Sp. 7,3-8,2 x 4,8-5,3 µm, ellipsoid to ovoid. Ch. 26-34 x 9,7-14 µm, ventricos to lageniform. Terrestrial between grass, Argentina.



P. riparia SINGER

30 (1) Cap sharply conical.

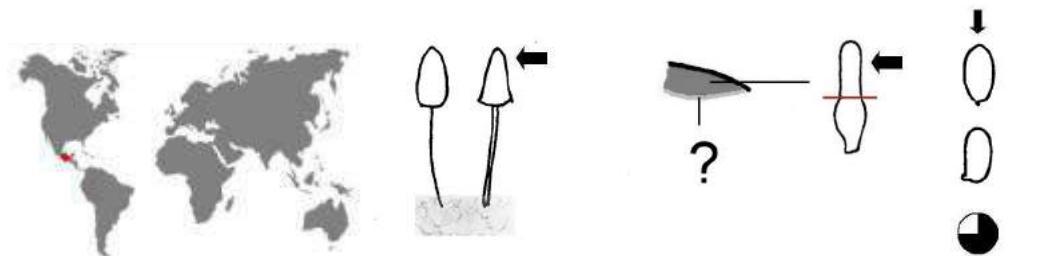
31

30* Cap otherwise.

33

31 (30) Spores up to 12 µm long, germ pore absent.

C. ~5 mm broad. V. sparse. Sp. 9,5-12 x 6-8 µm. Ch. unknown. Soil, Mexico.



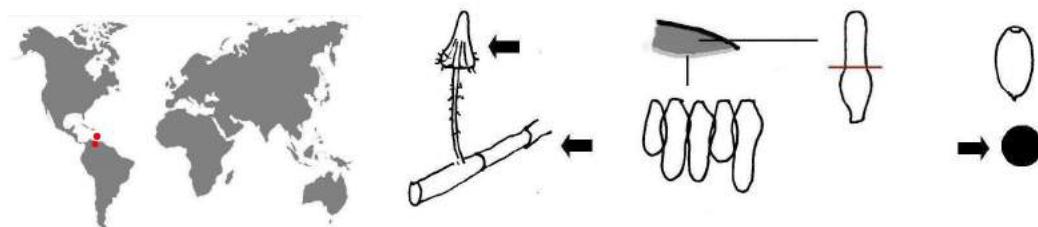
P. secotoides G. MORENO, HEYKOOP, ESQUEDA & OLARIAGA

31* Spores longer, germ pore present.

32

32 (31) Spores up to 9,5 µm broad, black brown.

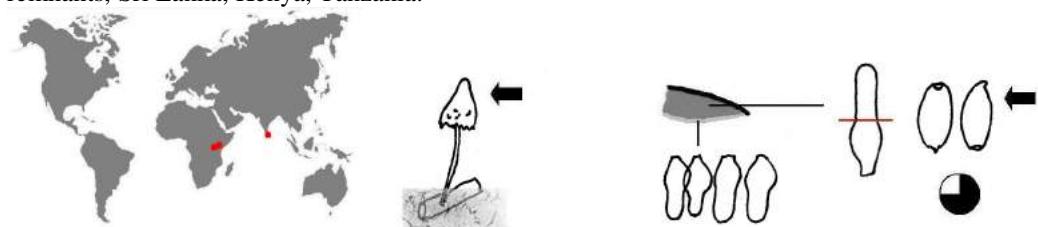
C. -20 mm broad, strikingly conical. V. volatile. Sp. 13-17 x 6-9,5 µm, oblong ovoid, ellipsoid, truncat. Ch. 30-50 x 11-17 µm, ventricos cylindrical, utriform to lageniform. Soil, banana leaves and stumps, bamboo stems, Martinique, St. Vincent, Venezuela.



P. myceniformis DENNIS

32* Spores up to 8 µm broad, red brown.

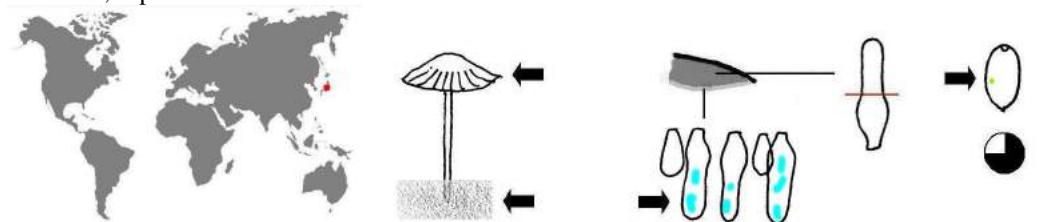
C. -15 mm broad, strikingly conical. V. distinct. Sp. 11,5-15 x 5-8 µm, oblong ovoid, ellipsoid, truncat, often with suprahilar depression, red brown. Ch. 30-45 x 13-45 µm, utriform, lageniform. Plant remnants, Sri Lanka, Kenya, Tanzania.



P. tiarella (BERK. & BROOME) SACC.

33 (30) Cheilocystidia often with blue-green deposits.

C. -95 mm broad. V. sparse. Sp. 10-13,5 x 5-6,5 µm, red brown. Ch. 27-57 x 9-17 µm. Sandy soil with leaf litter, Japan.



P. turcosomarginata HOASHI

33* Cheilocystidia without deposits.

34

34 (33) Spores up to 11,5 µm long.

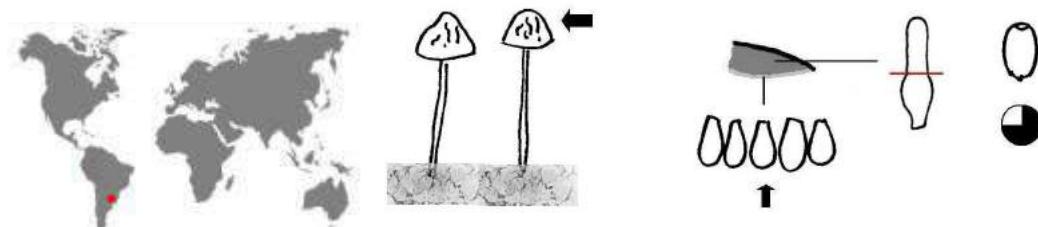
35

34* Spores longer.

37

35 (34) Cheilocystidia only clavate.

C. -25 mm broad, rugulose. V. sparse. Sp. 10,7-11,3 x 6,5-7,3 µm. Ch. 23-35 x 10,3-11,7 µm. Soil, Argentina.



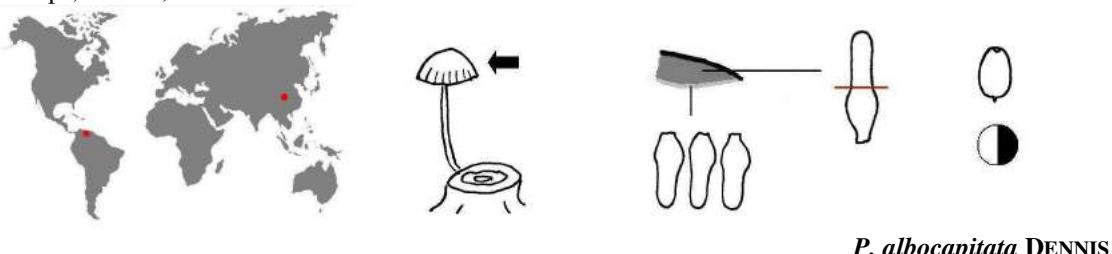
P. marthae SINGER

35* Cheilocystidia utriform.

36

36 (35) Cheilocystidia not capitate.

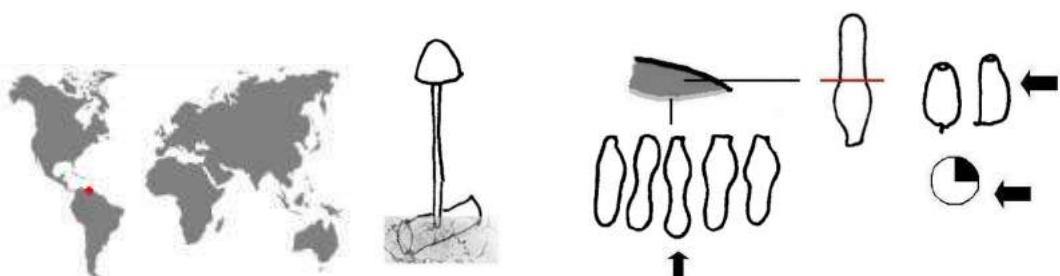
C. -20 mm broad. V. absent. Sp. 6-10 x 4-5 (-5,5) μm , ovoid. Ch. 22-35 x 11-14, ventricos. Tree stumps, China?, Venezuela.



P. albocapitata DENNIS

36* Cheilocystidia often capitate.

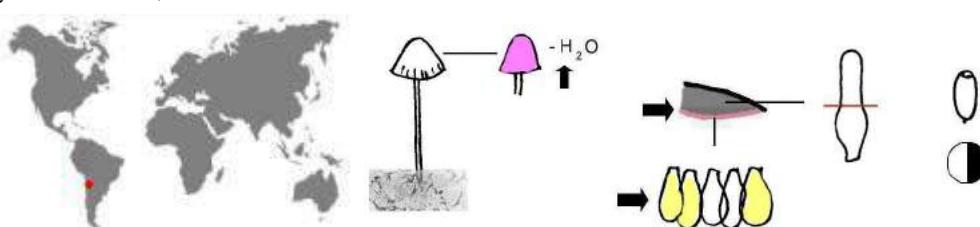
C. -12 broad. V. sparse. Sp. 8-11 x 4-5,5 μm , ovoid. Ch. 30-40 x 8-12 μm . Dead wood, palm stems, Trinidad.



P. pallidispora DENNIS

37 (34) Lamellae edge pinkish.

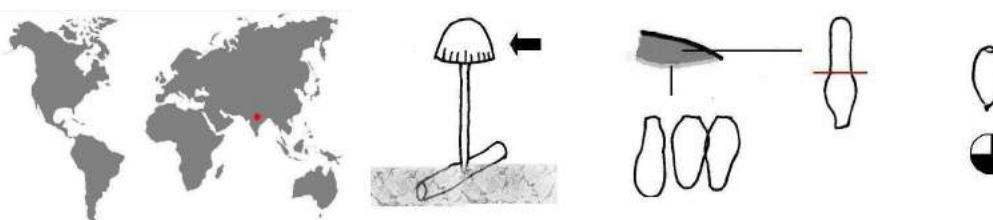
C. -25 mm broad. V. absent. Sp. 13,5-15,5 x 6,5-8 μm . Ch. 13-30 x 9-25 μm , clavate, sometimes yellowish. Soil, Chile.



P. nothomyrciae SINGER

37* Lamellae edge white.

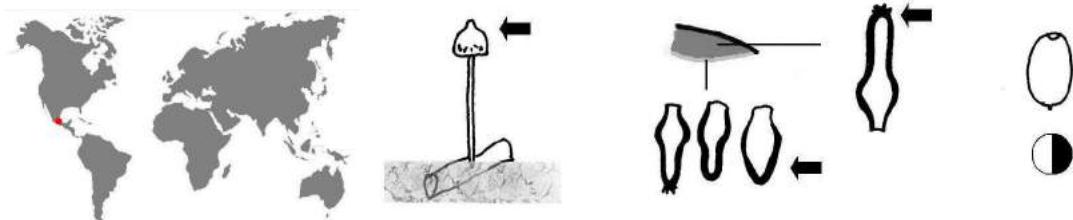
C. -30 mm broad. Sp. 12-15 x 5-7 μm , ellipsoid. Ch. 21-28 x 8-20 μm , vesiculos, utriform, Dead wood, India.



P. pruinosa RAWLA

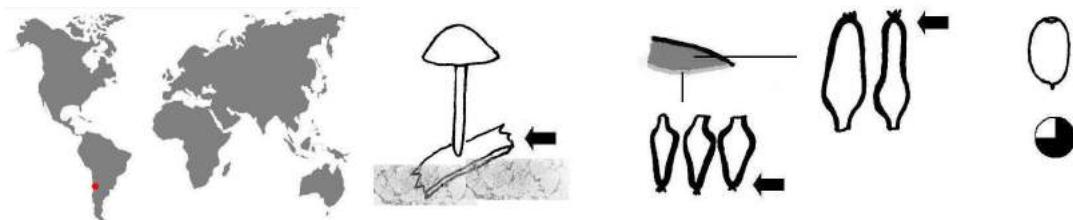
B – Pleurocystidia present

- | | | |
|-----------|--|-----------|
| 1* | Pleurocystidia thinwalled or unobtrusively thickwalled. | 10 |
| 2 | (1) Spores maximum length 7,5 μm. | 3 |
| 2* | Spores longer. | 6 |
| 3 | (2) Tiny species. | |
- C. -5 mm broad. V. sparse. Sp. 6,2-7 x 4,5-5 μm , ellipsoid to ovoid or amygdaliform, brown. Ch. similar to the pl., with thinner walles and smaller. Pl. 39-62 x 10-20 μm , thick-walled, apex with crystals. Dead wood, Mexico.



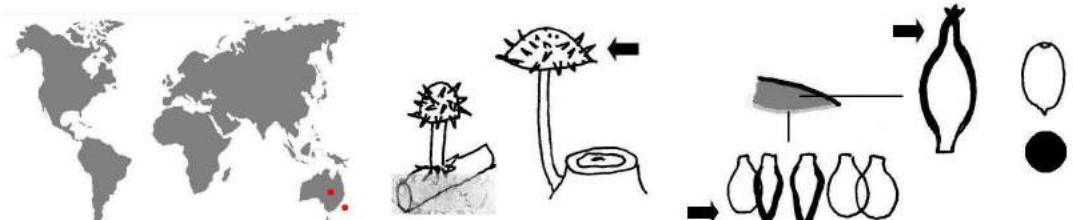
P. crinipellis SINGER

- | | | |
|-----------|-------------------------|----------|
| 3* | Larger species. | 4 |
| 4 | (3) Veil absent. | |
- C. -20 mm broad. Sp. 5,5-6(-6,5) μm , ellipsoid to ovoid, ocher black, germ pore small. Ch. 20-35 x 9-15 μm , walls slightly thickened, apex with crystals. Pl. similar to the ch. An old bark residues, Chile.



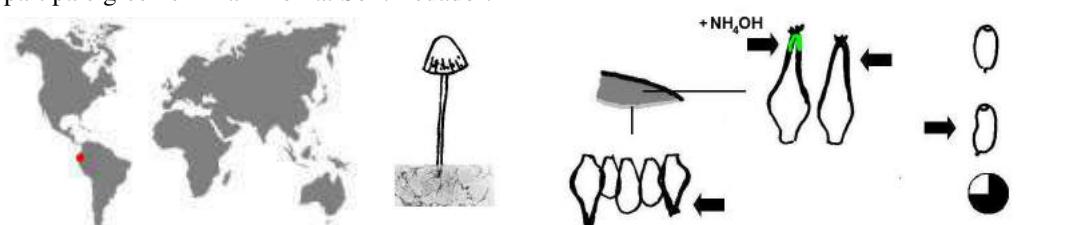
P. chiloensis SINGER

- | | | |
|-----------|--------------------------------------|----------|
| 4* | Veil present. | 5 |
| 5 | (4) Veil spreading squarrose. | |
- C. -45 mm broad. V. strongly developed, ocher-brown. Sp. 5,5-6,5 (-7) x 3,5-(4), dark brown, opaque. Ch. 25-40 (-50) x (10-) 12-20 μm , partly with thickened walls. Pl. 30-50 x 13-20 (-25) μm , Walls thickened, partly with crystals. Dead wood, Australia, New Zealand.



P. echinata (CLELAND) GRGURINOVIC

- | | | |
|-----------|------------------------|--|
| 5* | Veil otherwise. | |
|-----------|------------------------|--|
- C. -25 mm broad. V. floccose, white. Sp. 7-7,5 x 4-4,5 μm , laterally phaseoliform. Ch. similar to the pl., smaller. Pl. 33-61 x 17-23 μm , walls slightly thickened, apikally with hyaline encrustations, upper part pale greenish in ammonia. Soil. Ecuador.



P. hesleriaaffinis SINGER

6 (2) Germ pore absent.

C. -20 mm broad. V. absent. Sp. 8-9 x 5 μm , ellipsoid-amygdaloid, pale yellowish brown. Ch. not mentioned. Pl. 55-80 x 15-20 μm , Walls thickened, often with a few crystals. Dead wood, Sri Lanka.



P. amaura (BERK. & BROOME) PEGLER

6* Germ pore present.

7

7 (6) Cheilocystidia thin-walled.

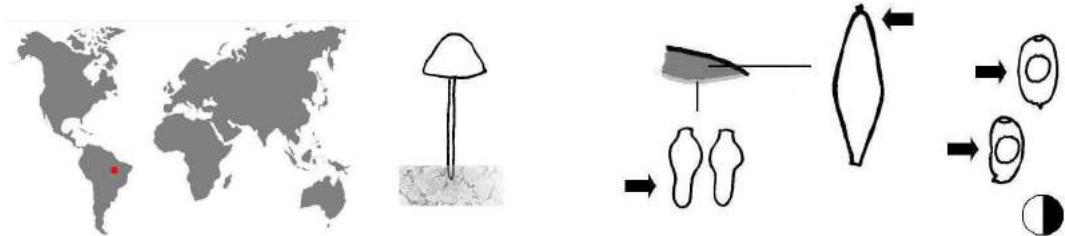
8

7* Cheilocystidia thick-walled.

9

8 (7) Spores up to 8 μm long.

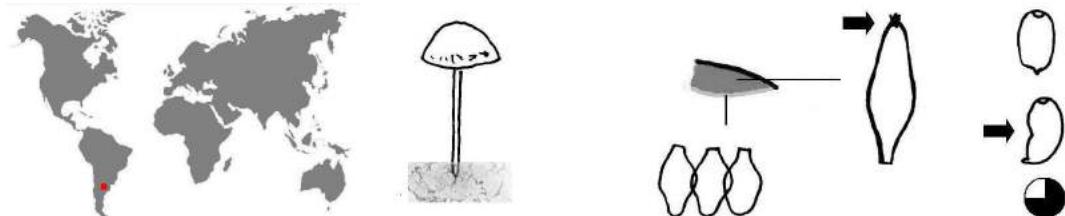
C. -30 mm broad. V. absent. Sp. 6,5-8 x 4-5 μm , ovoid, ellipsoid, laterally sometimes phaseoliform, brown, with a large round oil drop, germ pore distinct. Ch. approximately 30 x 10 μm , versiform, mostly bottle-shaped. Pl. 34-66 x 9-26 μm , fusiform, walls slightly thickened, with crystals. Terrestrial, tropical forest, Brazil.



P. varzeae SINGER

8* Spores up to 10,3 μm long.

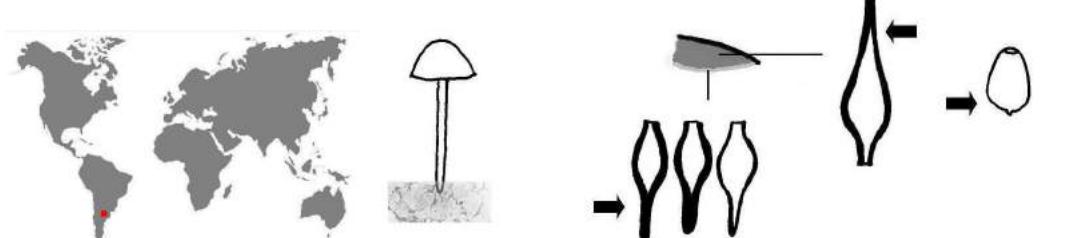
C. -35 mm broad. V. distinct. Sp. 8-10,3 x 4,2-4,5 μm , oblong, mostly with a suprahilar depression, dark reddish brown. Ch. 13-35 x 9-31 μm , vesiculos. Pl. 35-78 x 9,5-20 μm , fusiform, thick-walled, apex with crystals. Terrestrial, leaf litter, Argentina.



P. phaeocystidiata SINGER

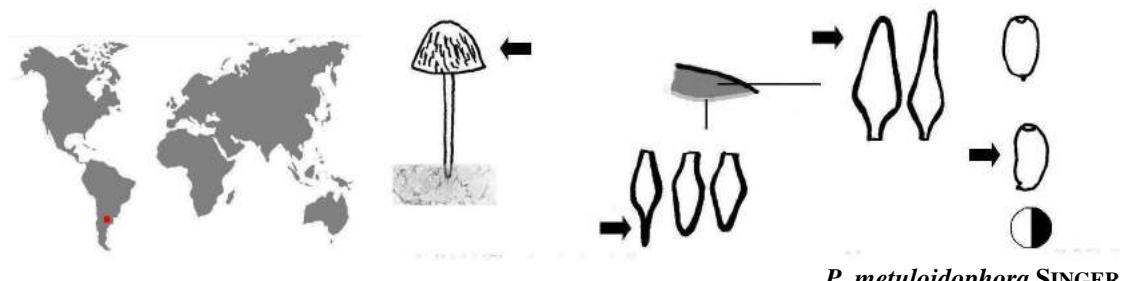
9 (7) Spores up to 9,5 μm lang, brownish.

C. without measure. V. unknown. Sp. 8,2-9,5 x 5-5,8 μm . Ch. 60-70 x 8-12 μm , fusiform. Pl. unclear, probably similar to the ch. Habitat unknown, Argentinia.



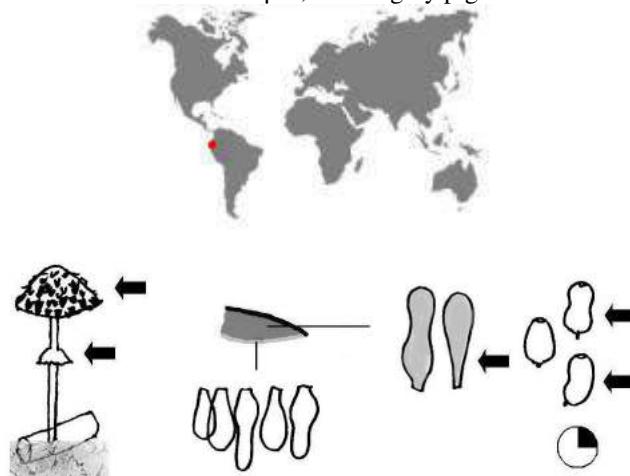
P. fuegiana E. HORAK

9* **Spores up to 10,3 µm lang, rötlich graubraun.**
 C. ~50 mm broad, brownish fibrous. Sp. 9-10,3 x 5,5-6,2 µm, ellipsoid, laterally phaseoliform, germ pore small. Ch. similar to the pl., smaller. Pl. 56-95 x 11,5-20,5 µm, fusiform, thick-walled.
 Terrestrial, Argentina.



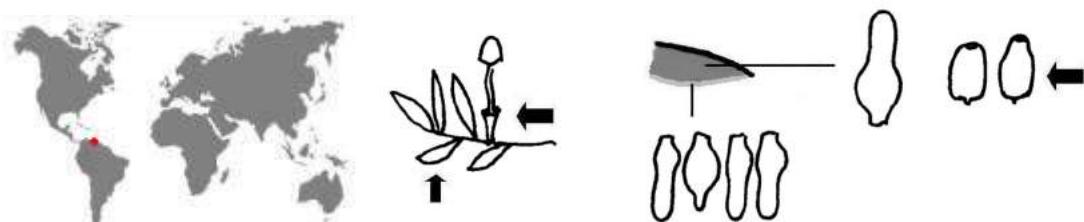
P. metuloidophora SINGER

- | | |
|---|----|
| 10 (1) Stipe with annulus or annular zone. | 11 |
| 10* Stipe without annulus or annular zone. | 18 |
| 11 (10) Spores up to 8,5 µm long. | 12 |
| 11* Spores longer. | 15 |
| 12 (11) Spores frontally often with irregular outline or rounded angular. | 13 |
| 12* Sporen frontally ellipsoid. | 14 |
| 13 (12) Large species, annulus on the upper part, hanging. | |
- C. ~35 mm broad, brown scaly. St. with membranous annulus. Sp. 5,5-6,8 x 3,5-4 µm, rounded-angular subcylindrical, often mitriform, also constricted in the middle, laterally phaseoliform. Ch. similar to the pl., in addition, clavate cells. Pl. 13-56 x 15-17 µm, smoke gray pigmented. Dead wood, Ecuador.



Cystoagaricus squarrosiceps (SINGER) ÖRSTADIUS & E. LARSS.

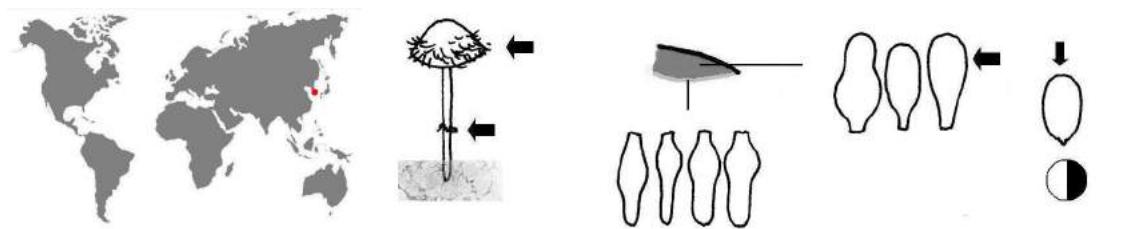
- 13* **Tiny species, annulus far below, ascending.**
 C. ~1,5 mm broadt. Sp. 5,5-7 x 4-5 µm. Ch. 25-30 x 12-16 µm, utriform. Pl. similar. On bamboo leaves, Trinidad.



P. trigonospora DENNIS

14 (12) Pleurocystidia often clavate.

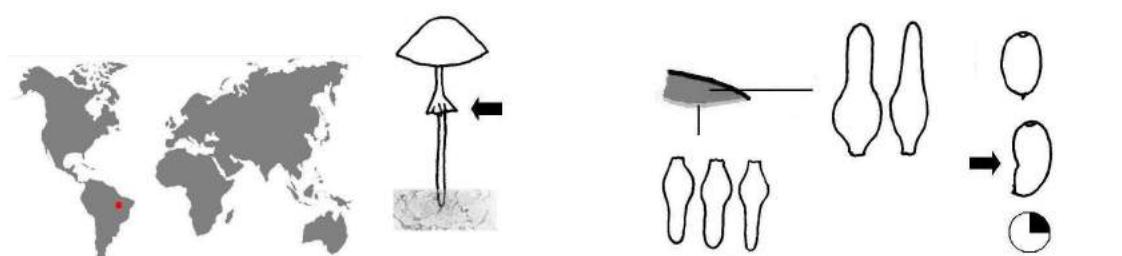
C. -48 mm broad. V. young strongly developed. St. only young with annular zone. Sp. 7,1-8,2 x 3,2-4,1 μm , germ pore partly indistinct. Ch. 33,8-38,3 x 7,9-12,4 μm , apically sometimes encrusted. Pl. 22,5-27 x 11,3-15,8 μm . In humus or at residues of cotton plants, Korea.



P. koreana S. J. SEOK & Y. S. KIM

14* Pleurocystidia utriform, lageniform.

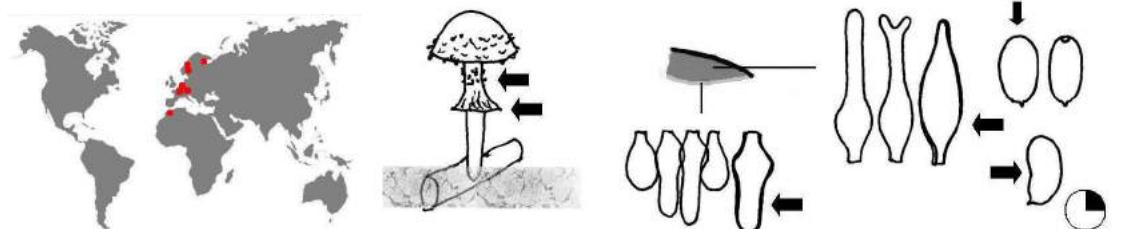
C. -17 mm broad. V. absent. Sp. 7,5-8,5 x 4,5-5 μm , ellipsoid to phaseoliform, pale brown. Ch. similar to the pl., these 25-40 x 7,5-13 μm , utriform to sublageniform, rare. Leaf litter, Brazil.



P. annulosa SINGER

15 (11) Spores pale, germ pore absent or very indistinct.

C. -70 mm broad. V. young strongly developed. Sp. (7,5-) 8-10 (-10,7) x 4,3-5,3 (-6) μm , brown. Ch. 25-60 x 8-20 μm . Pl. 45-80 x 10-20 μm , walls sometimes slightly thickened. Litter, dead wood Central and Northern Europe, Morocco.



P. langei (MALENCON) CONTU

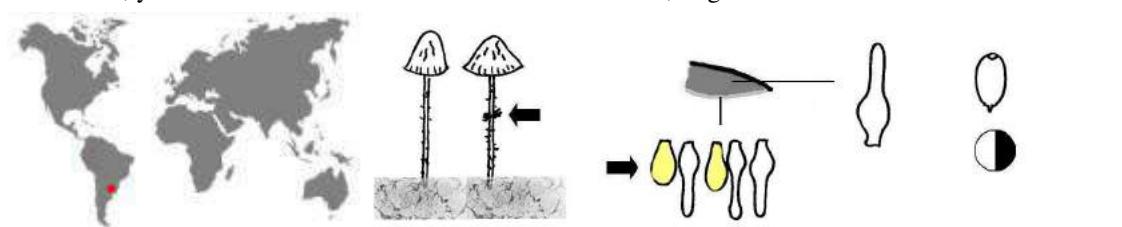
(Syn.: *Psathyrella rostellata* ÖRSTADIUS, *Psathyrella malenconii* FOUCHIER, *Psathyrella longistriata* var. *langei* (MALENCON) NEVILLE & FOUCHIER)

15* Spores darker, germ pore distinct.

16

16 (15) Spores up to ca. 12 μm long.

C. -35 mm broad. V. sparse, on the stipe persistent. Sp. 8,5-12 x 5-6,5 (-7) μm . Ch. 27-55 x 8-19 μm , In addition, yellowish clavate cells. Pl. Similar to the Ch. Soil, Argentina.



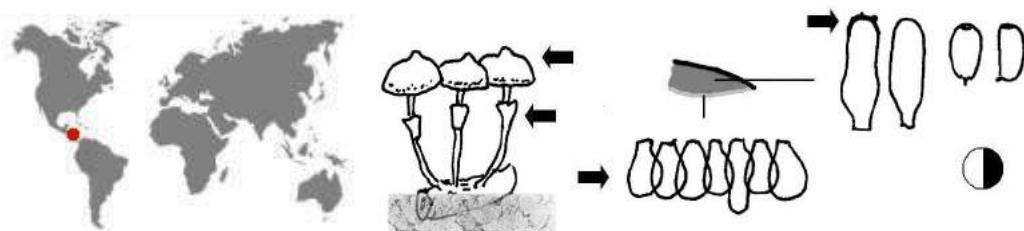
P. subandina SINGER

16* Spores up to ca. 10,5 μm long.

17

17 (16) **Pleurocystidia utriform.**

C. ~35 mm broad, umboнатет. V. distinct. Stipe with an annulus, upward open. Sp. 7-10 x 4-5,5 μm . Ch. 25-35 x 11-13 μm , rare, clavate cells numerous. Pl. 45-52 x 14-21 μm , sometimes with apikally thickened walls and with deposits. Dead wood, terrestrial, Costa Rica.



P. striatoannulata HEYKOOP, G. MORENO & M. MATA

17* **Pleurocystidia lageniform.**

C. ~45 mm broad. V. distinct. Sp. 9,5-10,5 x 5-6 μm , oblong ovoid, truncat. Ch. 60-75 x 12-16 μm , fusoid-ventricos. Pl. 60-75 x 12-16 μm , fusoid-ventricose. Base of tree stumps, Venezuela.



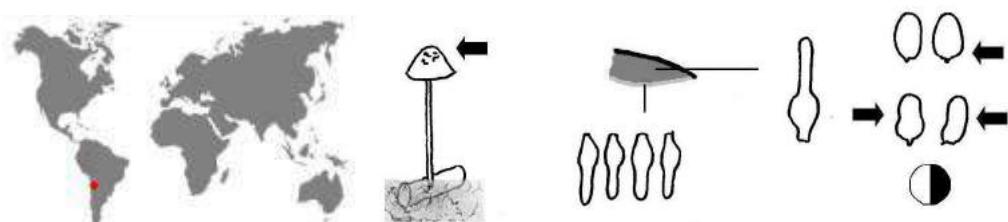
P. aristeguietana DENNIS

18 (10) Spores up to 8,5 (-8,8) μm long. 19

18* Spores longer. 28

19 (18) Spores frontally often ovoid or constricted.

C. ~15 mm broad, center rugulose. V. absent. Sp. 7-8,5 x 3,5-4,5-(5) μm . Ch. 42-57 x 8,5-12,2-(15) μm . Pl. similar to the ch. Totholz. Chile.



P. apora SINGER

19* Spores otherwise. 20

20 (19) Spores strikingly pale. 21

20* Spores otherwise. 22

21 (20) Small species, pleurocystidia brownish pigmented.

C. ~13 mm broad. V. sparse. Sp. 7,5-8 x 4,5-5,5 μm . Ch. similar to the pl., but more lageniform. Pl. 24-42 x 10-14,5 μm . Dead wood, Ecuador.

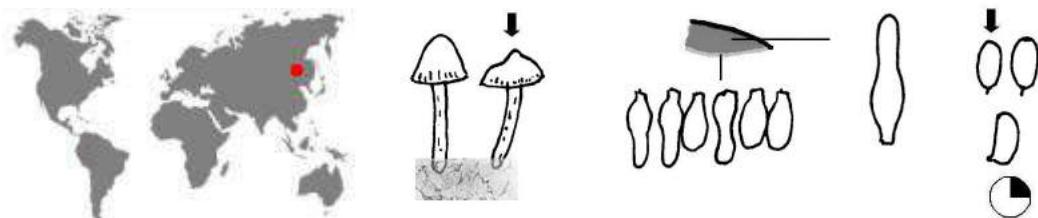


P. subconocyboides SINGER

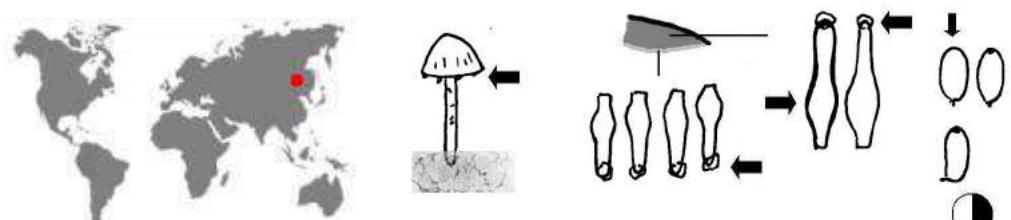
21*

Large species, pleurocystidia not brownish pigmented.

C. – 45 mm broad, often umbonate. V. sparse. Sp. $7,8\text{--}8,8 \times 4\text{--}4,5$ (–5) μm , ellipsoid, germ pore indistinct to absent. Ch. $24\text{--}39 \times 8,5\text{--}12 \mu\text{m}$. Pl. $43\text{--}61 \times 8,5\text{--}12 \mu\text{m}$, utriform. Soil, dead wood, China.

*P. conica* T. BAU & J.Q. YAN22 (20) **Cystidia with apically enrustations.**

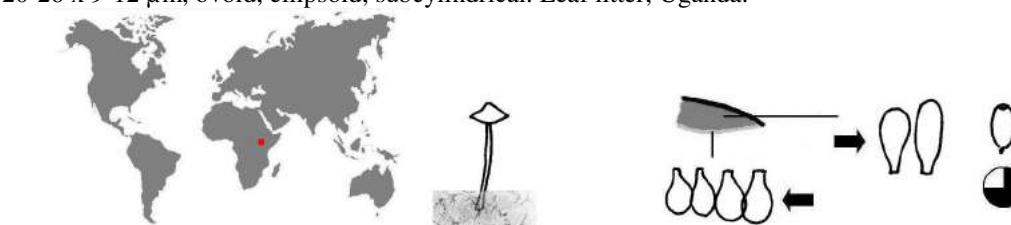
C. – 45 mm broad. V. sparse. Sp. $(5,8)\text{--}6,3\text{--}7,3$ (–7,8) $\times (3)\text{--}3,4\text{--}4,4 \mu\text{m}$, ellipsoid, germ pore indistinct to absent. Ch. $37\text{--}51 \times 8,5\text{--}12 \mu\text{m}$, fusiform to utriform. Pl. similar. Soil, dead wood, China.

*P. jilinensis* T. BAU & J. Q. YAN22* **Cystidia otherwise.**

23

23 (22) **Cheilocystidia only clavate.**

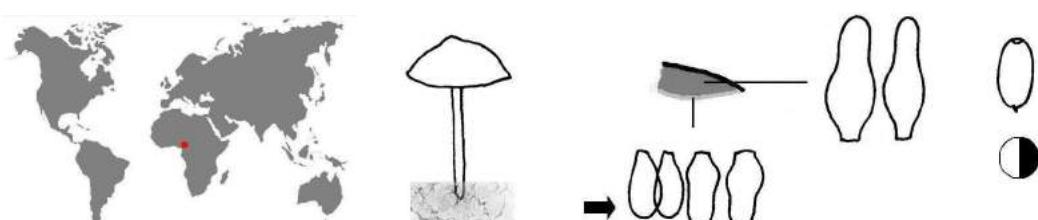
C. –10 mm broad. V. absent. Sp. $6,5\text{--}8,5 \times 4,2\text{--}5,2 \mu\text{m}$, ovoid to ellipsoid. Ch. $15\text{--}20 \times 10\text{--}12 \mu\text{m}$. Pl. $20\text{--}26 \times 9\text{--}12 \mu\text{m}$, ovoid, ellipsoid, subcylindrical. Leaf litter, Uganda.

*P. ovaticystis* PEGLER23* **Cheilocystidia not only clavate.**

24

24 (23) **Cap up to 85 mm broad.**

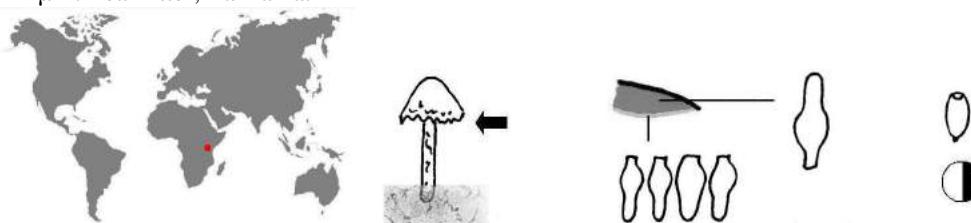
V. absent. Sp. $6,5\text{--}8 \times 4\text{--}5 \mu\text{m}$, ovoid to ellipsoid, brown. Ch. $24\text{--}35 \times 9\text{--}15 \mu\text{m}$, clavate, utriform, sublageniform, crowded. Pl. $35\text{--}45$ (–60) $\times 13\text{--}25 \mu\text{m}$, ventricos-lageniform, numerous. Terrestrial, between grass, Cameroon.

*P. yaoundeana* MOSSEBO & PEGLER24* **Cap distinctly smaller.**

25

25 (24) Veil strongly developed.

C. ~40 mm broad. Sp. 5,5-7,5 x 3,5-4,5 µm, ovoid to ellipsoid, brown. Ch. 25-32 x 9-13 µm. Pl. 27-40 x 11-14 µm. Leaf litter, Tanzania.



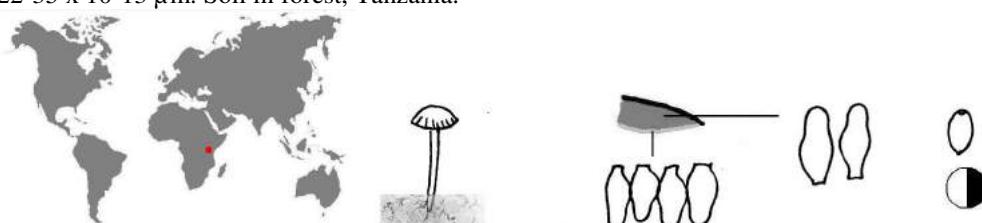
P. magambica PEGLER

25* Veil sparse or absent.

26

26 (25) Cheilocystidia numerous, paracystidia absent.

C. ~30 mm broad. V. absent. Sp. 6-7,2 x 3,2-4,7 µm, ellipsoid, reddish brown. Ch. 24-30 x 12-14 µm. Pl. 22-35 x 10-13 µm. Soil in forest, Tanzania.



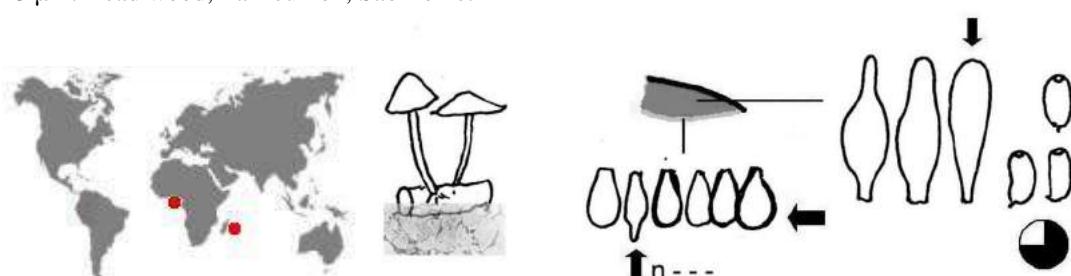
P. moshiana PEGLER

26* Cheilocystidia rare, paracystidia dominating.

27

27 (26) Spores up to 6 µm long, paracystidia often with thickened walls.

C. ~25 mm broad. V. sparse. Sp. 5-6 x 2,5-3,8 µm. Ch. 22-30 x 8-9,5 µm, very rare. Pl. 18-35,5 x 7,5-15 µm. Dead wood, La Réunion, São Tomé.

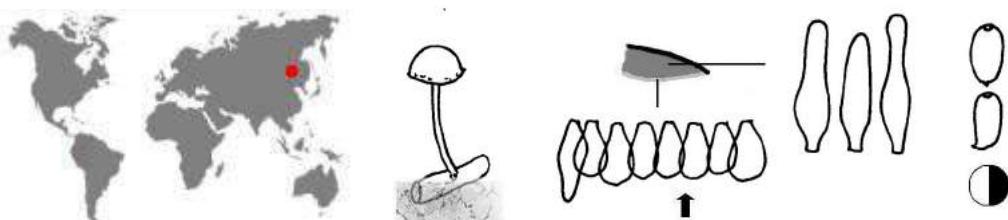


P. laevissima (Romagn.) Singer

(Syn.: *P. oboensis* DESJARDIN & B. A. PERRY)

27* Spores longer, paracystidia thin-walled.

C. ~25 mm broad. V. sparse. Sp. 6,3-7,8 x 3,9-4,9 µm. Ch. 22-37 x 10-12 µm, rare. Pl. 37-60 x 10-15 µm. Dead wood, China.



P. subspadiceogrisea T. BAU & J. Q. YAN

28 (18) Pleurocystidia often with 2-3 protuberances.

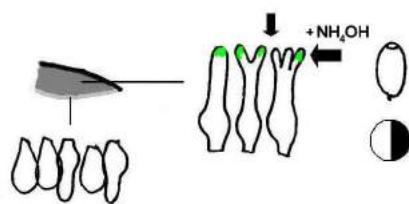
29

28* Pleurocystidia otherwise.

30

29 (28) Pleurocystidia with greenish deposits in ammonia solution.

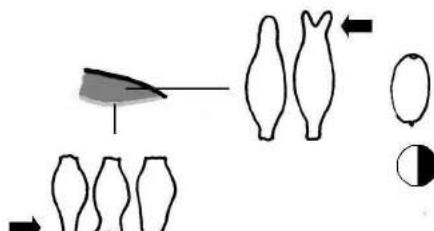
C. -30 mm broadt. V. sparse. Sp. (8,5-) 9-11,3 x 4-5,8 µm. Ch. 20-40 x 5,8-12 µm, in addition, clavate cells. Pl. 40-89 x 12-21 (-23,5) µm. Soil, Argentinia.



P. dactylocystis SINGER

29* Pleurozystiden without such deposits.

C. -40 mm broad. V. absent. Sp. 9-11 x 4,5-5 µm, ellipsoid, red brown. Cystidia (not differentiated) 70-90 x 14-17 µm, ventricos. Terrestrial, Falkland Islands.

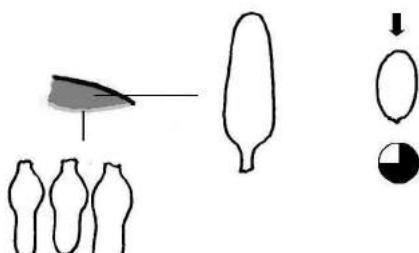


P. falklandica COTTON

30 (28) Germ pore absent.

27

C. -25 mm broad, umbonate. V. strongly developed. Sp. 7-11,2 x 5,5-8,5 µm, dark brown. Ch. 40-60 x 18-20 µm. Pl. 70-85 x 22-35 µm. Terrestrial, India.



P. terrestris NATARJAN

30* Germ pore present.

31

31 (30) Spores up to 16,5 µm long.

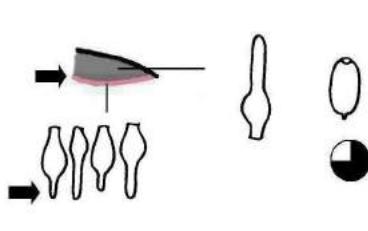
32

31* Spores not longer than 13,5 µm.

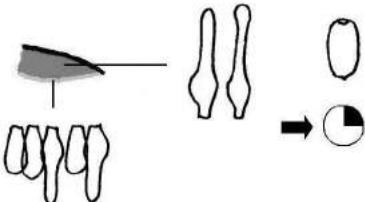
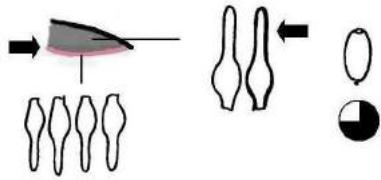
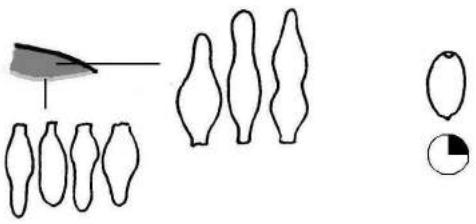
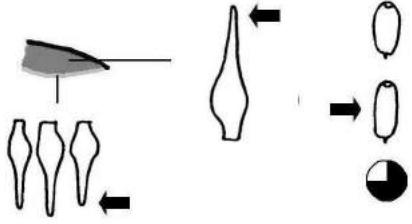
33

32 (31) Lamellae edge pinkish.

C. - 12 mm broad, when drying with pink. V. sparse. Sp. 13,8-16 x 7,8-8,7 µm. Ch. 25-37 x 8,7-15 µm. Pl. similar to the ch. Soil, Argentinia, Chile.



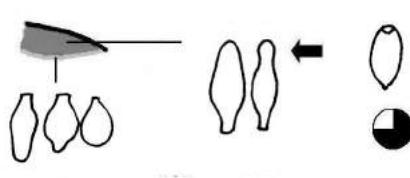
P. tilcariensis SINGER

- 32* **Lamellae edge white.**
C. – 20 mm broad. V. sparse. Sp. 11,5-16,5 x 6,5-8,2 µm. Ch. 26-56 x 7-13,5 µm, in addition, clavate cells. Pl. 30-68 x 10-18 µm. Soil, Argentinia.
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- P. patagonica* SINGER
- 33 (31) **Spores up to 13,5 µm long.** 34
 33* **Spores not longer than 10,5 µm.** 37
- 34 (33) **Lamellae edge pinkish.**
C. -30 mm broad. V. sparse. Sp. 12,3-13,5 x 6,5-7,5 µm. Ch. 20-41,5 x 7,5-14 µm. Pl. 3-60 x 11-14 µm, walls sometimes slightly thickened. Soil, Argentinia, Chile.
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- P. subprona* SINGER
- 34* **Lamellae edge white.** 35
 35 (34) **Cap up to 20 mm broad, Spores up to 13 µm long, pale.**
V. absent. Sp. 8-13 x 6-8 µm, ellipsoid. Ch. similar to the pl, these 12-48 x 4,5-12 µm, very versiform. Mangrove swamp, Hawaii.
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- P. rhizophorae* SINGER
- 35* **Cap broader, Spores shorter, dark.** 36
 36 (35) **Pleurocystidia lageniform, apex acute.**
C. –70 mm broad. V. young distinct. Sp. 9,7-11,7 x 6-6,3 µm, often subcylindrical. Ch. 34,5-49,5 x 10,8-14 µm. Pl. 65-126 x 13-22 µm, brownish pigmented, walls slightly thickend. Soil, Argentinia.
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- P. moseri* SINGER

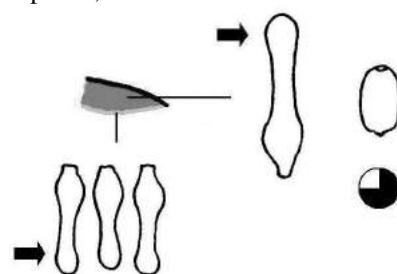
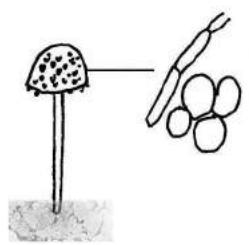
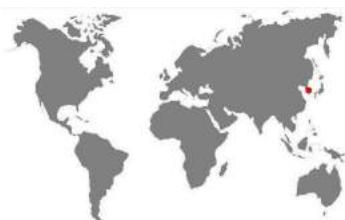
36*

Pleurocystidia utriform, apex obtuse.

C. ~50 mm broad. V. absent. Sp. 9,5-12,5 x 6-6,7 μm , ellipsoid. Ch. 25-40 x 13-23 μm , mostly clavate, some ellipsoid or mucronat. Pl. 25-40 x 9-17 μm . Soil in forest, Tanzania.

*P. usambarensis* PEGLER37 (33) **Veil cells partly globos.**

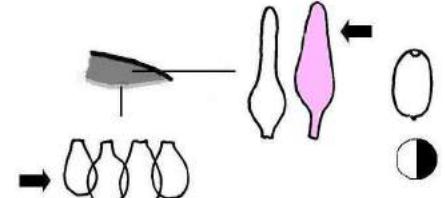
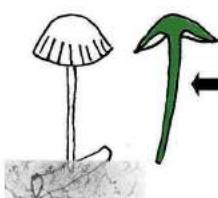
C. ~12 mm broad, not spreading. V. white, granular. Sp. 8,2-9,1 x 3,9-4,6 μm . Ch. 27,3-33,7 x 6,8-9,1 μm . Pl. 29,1-36,4 x 9,1-10 μm . In humus or at residues of cotton plants, Korea.

*P. utriformcystis* S. J. SEOK & Y. S. KIM37* **Veil cells not so.**

38

38 (37) **Pleurocystidia pale wine red pigmented.**

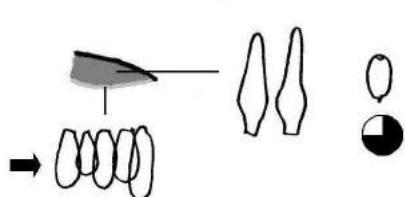
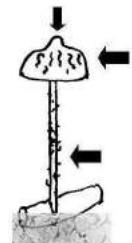
C. ~50 mm broad. V. absent. Flesh with an olive hue. Sp. 9-10 x 4,5-5 μm , ellipsoid, ovoid, brown. Ch. only clavate and sphaeropedunculate. Pl. 45-55 x 11-17 μm , partly reddish pigmented. Pieces of wood, Venezuela.

*P. bernardiana* DENNIS38* **Pleurocystidia not so.**

39

39 (38) **Cheilocystidia almost only clavate.**

C. ~50 mm broad. V. sparse, brownish. Sp. 7,7-9,5 x 4,3-5,2 μm . Ch. 19-26 x 10-15 μm , subcylindrical clavate. Pl. 38-73 x 7-18 μm , fusiform, lageniform, mostly pointed, walls sometimes slightly thickened. Soil, dead wood, Chile.

*P. polycystidiosa* SINGER39* **Cheilocystidia not only clavat.**

40

40 (39) **Cheilocystidia intermixed with numerous clavate cells.**

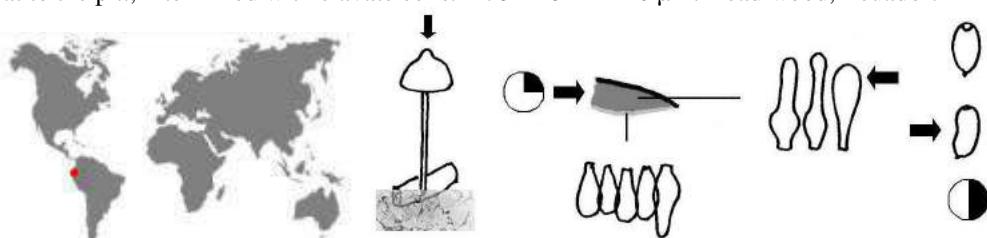
41

40* **Cheilocystidia hardly intermixed with clavate cells.**

43

41 (40) Lamellae strikingly pale, spores phaseoliform.

C.-33 mm broad, with umbo. V. absent. L. narrow, close, pale brownish. Sp. 8-9,6 x 4,7-6 μm . Ch. similat to the pl., intermixed with clavate cells. Pl. 32-46 x 11-20 μm . Dead wood, Ecuador.



P. fascicularis SINGER

41* Lamellae not strikingly pale, spores not phaseoliform.

42

42 (41) Tiny species, cap with pinkish tones, spores yellowish brown.

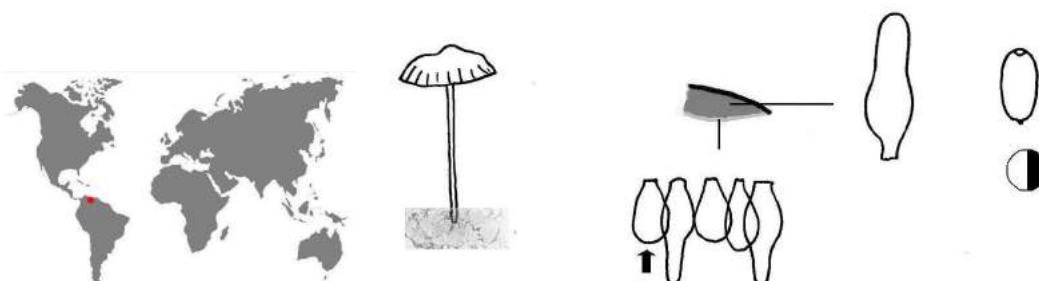
C. - 5 mm broad. V. unknown. Sp. 8,8-9,2 (-9,7) x 5-5,4 μm , ellipsoid. Ch. 29-44 x 9,8-17 μm , lageniform, mucronate and clavate cells also present. Pl. 37-56 x 12-17 μm . Soil, in forests, China.



P. mycenoides T. BAU

42* Larger species, cap without pinkish tones, spores reddish brown.

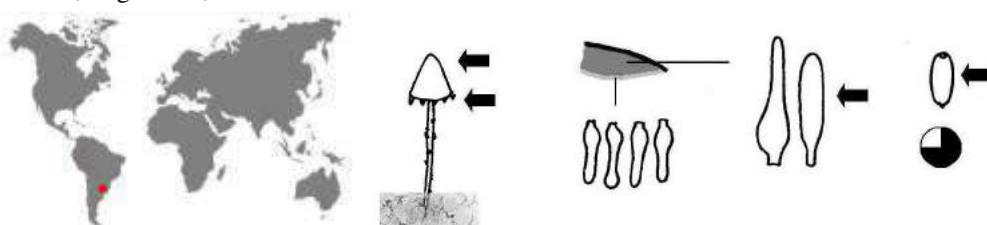
C. -30 mm broad. V. absent. Sp. 8,5-10,5 x 5-5,5 μm , long ellipsoid. Ch. 35-40 x 9-13 μm , intermixed with many clavate cells, 20-30 x 14-20 μm . Pl. 30-35 x 9-14 μm , utriform. Soil, Venezuela.



P. voloriana DENNIS

43 (40) Spores up to 10,8 μm long, cap strikingly conical.

C. -13 mm broad. V. appendiculate. Sp. 9-10,8 x 5-5,8 μm . Ch. 20-22,5 x 2,7-5,5 μm . Pl. 26-32 x 7,7-11 μm . Soil, Argentina, Chile.

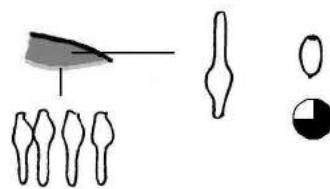
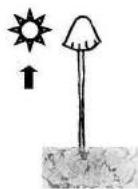


P. acutissima SINGER

43*

Spores up to 8,3 µm long, cap not strikingly conical.

C. -20 mm broad, dark grey. V. unknown. Sp. 7,3-8,3 x 4-5 µm. Ch. 36 x 11,5-16,5 µm. Pl. similar to the ch. Soil, dry land, Argentinia.



P. tristis SINGER
