

## *Aseroë arachnoidea* E. Fisch., 1890

**Description:** A white, tapering stipe topped by a radiating ring of white, tentacle-like arms.

**Egg:** White to grey, smooth-skinned, to 30 mm diameter, with white rhizomorphs at the base. The egg remnants are seen as a gelatinous, white volva at the base of the mature fruiting body's stipe.

**Stipe:** White, to 100 mm high and to 25 mm diameter, cylindrical but tapering a little towards the base. Hollow, sometimes with a round opening at the top. Surface may be slightly wrinkled. Wall is composed of a cellular structure.

**Disc:** A flattened plate of tissue that, on maturity, might be a complete diaphragm or be perforated.



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**Arms:** 8-12, white, brittle, radiating from the top of the stipe like the rays of a star, to 40 mm long and 6 mm wide at the base, tapering towards the tip. The arms consist of a single, hollow tube. The tips of some of the arms may be joined together.

**Gleba:** Carried on the disc or also extending a short distance along the upper surface of the proximal end of the arms. Black, with a thick, slimy texture. Strongly foetid odour.

**Spores:** 2.5-3.5 x 1.5-2 µm, elongate, smooth, hyaline.

**Habitat:** Coarse compost (Australia), dung heap (China), as fairy rings in lawns (Hawai'i).

**Notes:** Description from the University of Hawai'i's website: "It will actually look like there are black lumps on the lawns when this fungus reproduces, but they are actually piles of flies feeding on the gleba of individual fruiting bodies."

[http://www2.hawaii.edu/~baperry/Species\\_Descriptions/A\\_arachnoidea.html](http://www2.hawaii.edu/~baperry/Species_Descriptions/A_arachnoidea.html)

## *Aseroë rubra* Labill., 1806

- Description:** A stipe topped by a radiating ring of tentacle-like, forked arms. Colour may range from the typical bright red to pink, reddish-orange, orange, to lemon yellow. White forms have also been found. The number of arms also varies greatly.
- Egg:** Typically dingy white to grey in colour, but may be dark grey, pinkish, purplish or even brownish. To 30 mm in diameter with white rhizomorphs at the base. Gelatinous texture. The egg remnants are seen as a volva at the base of the mature fruiting body's stem, often semi-buried in the substrate.
- Stipe:** May be barely emerged from the egg or up to 80 mm long – usually to 60 mm, up to 30 mm in diameter, cylindrical or flaring towards the top. Hollow, smooth, but with a spongy surface and texture, dry. Usually the base of the stem is white, or with pinkish tints, and the colour deepens progressively upwards until the arms are reached. Wall is cellular in structure.
- Disc:** This is a flat diaphragm, up to 35 mm in diameter, which covers the top of the hollow stipe. It may be smooth or very coarsely wrinkled, it might be a complete disc, or it could have a hole in its centre. Its colour is variable, though it is usually red or pink. Sometimes it is covered by the gleba. The outer edge of the disc forms a thickened and spreading rim to the top of the stipe, from which the arms are attached.
- Arms:** 5-9, typically bright red, forked, radiating from the top of the stipe like the rays of a star, up to 40 mm long and 6 mm wide at the base, tapering towards the tips. Both upper and lower surfaces may be smooth or wrinkled. The arms are often twisted or curled and consist of a number of hollow chambers. Variation occurs in the colour, the number and breadth of the arms (some overseas *A. rubra* have up to 22 arms); the forks may taper to differing degrees, and the point of forking may be nearer to the stipe or to the tips. Some of the arms may remain fused together at their tips.
- Gleba:** Brown to olive-brown to black. Slimy texture, sometimes covering the disk or in blobs at the bases of the arms. Smell intensely foetid, of rotting meat or sewerage. If you touch this spore mass, the smell can linger on your hands for hours.
- Spores:** Rather variable in size: 3-7 x 1.5-3 µm, cylindric, smooth, hyaline or tinted.
- Habitat:** This species is common in the eastern half of Australia, growing in organically rich soils in rainforests and woody debris (rotting logs on forest floors) and often in well-mulched or wood-chipped garden beds, sometimes in large troops.
- Notes:** *Aseroë rubra* has the honour of being the first fungal record for Australia. It was collected on 1st May, 1792 on the shores of Recherche Bay, just south of Hobart, by the French naturalist Labillardière who was part of an expedition that was looking for the lost explorer, La Pérouse.



© John Van de Geyn

# *Clathrus* sp.

*A new species?*

**Description:** Fruiting body consists of a stipe topped by five or six long, vertical arms that may or may not be fused together at the tips or branched to form a simple mesh. White or creamy-white in colour, occasionally with pinkish tints.

**Substrate:** Rainforest litter, usually on decaying wood.

**Notes:** Joan Cribb (2005) described and photographed a similar-looking fungus in Queensland. The 130 mm tall, white, 5-6 armed fungi were growing with some much smaller (60 mm), similar-looking but 3-armed fungi.

From Cribb's description and photographs, the author first thought that this might be *Anthurus brownii* J. M. Mend., 1934.

Subsequent collections have shown that it is most likely not *A. brownii* and that it is possibly a new *Clathrus* species.

To confirm this, and to be able to make a formal description, more material needs to be collected and examined.



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## *Colus hirudinosus* Cavalier & Séchier, 1835

**Description:** A short stem that flares out into an open network of joined arms to make a cage-like structure. This net suddenly transitions into a much tighter lattice-work (or framework) at the top of the cage. To 70 mm high and 20 mm wide.

**Egg:** White or grey, may be mottled grey or brown on top. Diameter to 25 mm, smooth skinned, white rhizomorphs at the base. Upon maturity, it splits into several short, irregular lobes. The egg remnants are seen as a volva at the base of the mature fruiting body's stem.

**Stipe:** Very short, broad, up to 15 mm long and 12 mm diameter, slightly wrinkled surface and pale orange to red in colour. Hollow, made up of joined arms which become free to form the net above. Interior consists of a single layer of vertical tubes, sometimes with the hint of a second layer.



© Lizette Salmon

**Arms:** 3-7, united at the base to form the stipe, vertical, joining to become a very open net. This net arches over and abruptly changes at the top to become an evenly spaced and much tighter mesh, which is the fertile part of the receptacle. Surface wrinkled across the width of the arm, colour pale pink, orange or bright red. The arms are made up of a double layer of tubes – a large inner one and two or three small outer ones.

**Gleba:** Dark toned, purplish or olive-brown, thick and slimy. Carried on the underside of the upper mesh and on the inner side of the arms below. Smell foetid, fishy.

**Spores:** 3.5-6.5 x 1-2.4 µm, cylindric - almost bacilliform, smooth, hyaline.

**Habitat:** Grows singly or in groups on the ground. Prefers moist or winter-wet depressions in open forest and woodland, swampy forest areas.

**Notes:** There may be confusion between *Colus hirudinosus* and *Colus pusillus* as both species are of a similar size, structure and colouration and both are highly variable in appearance. The main distinction between the two is the tight mesh-like structure at the top of *C. hirudinosus*; *C. pusillus*'s net at the top is much larger and more open.

## *Colus pusillus* (Berk.) Reichert, 1940

**Description:** A short stem that flares out into an open network of joined arms which make a cage-like structure. To 100 mm high and 60 mm wide.

**Egg:** White to dingy-white, gelatinous, smooth surface with dimples reflecting the net-like structure of the not-yet expanded arms within, diameter to 25 mm, white rhizomorphs at the base. Upon maturity, it splits into several short, irregular lobes. The egg remnants are seen as a whitish volva at the base of the mature fruiting body's stem.

**Stipe:** Very short – sometimes rudimentary and still enclosed within the volva, made up of joined arms which ramify to form the lattice above. Almost white turning to pale fleshy-pink or pale yellow – the colour is a lighter shade of the arms.



© Lyndon Kurth

**Arms:** 3-10, united at the base to form the stipe, vertical, joining to become an irregular network that forms a cage-like structure. Inner surface wrinkled across the width; outer surface is smoother or may have furrows running down its length; bright red or orange-red in colour. The arms are roughly triangular in cross-section – with the base of the triangle facing outward, and made up of a double layer of tubes – a large inner one and two small outer ones.

**Gleba:** Olive-brown, thick and slimy, carried on the inner surface of the arms – particularly on the upper part of the receptacle. Odour unpleasant, intensely foetid, of rotting meat or sewerage.

**Spores:** 4-6 x 1.5-2.5  $\mu\text{m}$ , cylindric, smooth, yellowish or hyaline.

**Habitat:** Appears on deep forest litter, in woods or in cultivated areas, rich compost or even well-manured house lawns. May be solitary or occur in small groups, year-round in tropical and subtropical areas.

**Notes:** There may be some confusion between *Colus hirudinosus* and *Colus pusillus* as both species are of a similar size, structure and colouration and both are highly variable in appearance. The main distinction between the two is the tight mesh-like structure at the top of *C. hirudinosus*; *C. pusillus*'s net at the top is much larger and more open.

# *Ileodictyon cibarium* Tul. ex M. Raoul, 1844

**Common Name:** Basket Fungus, Lattice Fungus.

**Description:** A white, open-lattice ball, diameter to 250 mm, often detaching from the volva upon full maturity.

**Egg:** Dirty white, smooth-skinned with dimples reflecting the net-like structure of the not-yet expanded arms within, up to 70 mm diameter, with white rhizomorphs at the base. The egg remnants are seen as a whitish volva at the base, however, the receptacle often detaches from this and may be carried by the wind for some distance from its place of origin.



© Bernard Spragg

**Stipe:** None.

**Arms:** The arms are joined to create a net or mesh that forms a cage-like structure. If there are a lot of arms, there may be up to 30 fairly regular polygonal-shaped spaces in the net. The arms may join so symmetrically that, if the receptacle detaches from the volva, it is not possible to tell the top from the bottom. However, fewer arms mean fewer spaces and those spaces will be more uneven in size and more angular in shape. There is no noticeable thickening in the places where the arms join.

Translucent white, brittle and spongy in texture, up to 1cm wide and elliptical in cross-section, marked with creases which show the way the receptacle unfolded, concertina-like, from the egg. The surfaces may be smooth or wrinkled across the width; the outer surface may also be pitted or grooved along the length.

There is some variation in the internal structure of the arms. Some have a single tube that runs the length of the arm, or two tubes or, in rare cases, three tubes running side by side. Cunningham reported the interior to be coarsely cellular, but other mycologists since have reported only the tubular structure.

**Gleba:** Olive-brown, thick and slimy, carried on the entire inner surface of the arms. Odour described as foetid and “smelling of Camembert cheese”.

**Spores:** 4-6 x 1.8-3.3 µm, elongate, smooth, hyaline or tinted.

**Habitat:** Grows alone or in groups on the ground in garden mulch, in cultivated areas, in disturbed ground alongside roads and tracks, in woods and forests. May be in an exposed area or under bushes. Found all year round in tropical and subtropical areas.

**Notes:** This species has often been confused with *Ileodictyon gracile*. It is of similar size, shape and colour, but it differs by having wrinkled arms, which are not appreciably thickened at their junction with one another, and which are elliptical in cross-section. The arms are 4-5 times as wide as those of *Ileodictyon gracile*.

One mycologist, William Colenso of New Zealand, told a story about the explosive opening of one receptacle. "It was late in the autumn (May), when I was in a grassy spot on the confines of a small retired wood (whither I had often been in former years), when on seating myself on a dead prostrate tree I noticed two or three common specimens of *I. cibarium* showing themselves among the low herbage ; I collected them. On looking more closely I saw an olive-coloured egg-shaped fungoid substance peering up from the ground underneath a thick branch of the tree on which I was sitting, apparently as if it were pressed down by the branch. I broke the branch off carefully, when the egg-like substance rapidly burst open, and up sprang this fine specimen as if forcibly ejected by a spring, unfolding itself immediately to its full size. Its sudden and unexpected movement startled me ; but after admiring this wondrous production of Nature, and its astonishing internal powers,-seeing, too, it was but a weak and flimsy tender substance without nerves, I brought it carefully away in my handkerchief, and, after washing it with a feather in repeated waters (to remove its copious brownish slime of a most disagreeable odour, which is common to them all, including the closely-allied and handsome genus *Aseroe*), I dried it, and its volva or case, as a good specimen."

*Transactions and Proceedings of the Royal Society of New Zealand*, 1893. p. 308.

Cunningham also has a story about this fungus. "The appearance of these latticed hollow spheres without visible means of attachment to the substratum often mystified the ancient Maori. Forced to find some explanation of their (to him) mysterious origin, and guided no doubt by their characteristic foetid odour, he came to the conclusion that they were tutae kehua or tutae whetu ("Faeces of ghosts or of the stars"). The specific name was applied to the species under the impression that the unexpanded plant was used as food by the Maori. The late Mr. Elsdon Best, a renowned Maori scholar, advised me that the species was not included among the fungi the Maori considered edible. This is understandable as it is scarcely likely he would meddle with a plant which was evidently of supernatural origin."

*The Gasteromycetes of Australia and New Zealand*, p. 5.



## *Ileodictyon gracile* Berk., 1845

**Description:** A white, open-lattice ball, diameter to 200 mm, often detaching from the volva upon full maturity.

**Egg:** Dingy white, diameter to 30 mm, with white rhizomorphs at the base. The egg remnants are seen as a whitish volva at the base, however, the receptacle often detaches from this and may be carried by the wind for some distance from its place of origin.

**Stipe:** None.

**Arms:** The arms are joined to create a net or mesh that forms a cage-like structure. If there are a lot of arms, there may be up to 30 fairly regular polygonal-shaped spaces in the net.



© Michael Jefferies

The arms may join so symmetrically that, if the receptacle detaches from the volva, it is not possible to tell the top from the bottom. However, fewer arms mean fewer spaces and those spaces will be more uneven in size and more angular in shape. The join area of the arms may be broader than the arms themselves. Some joins look triangular in shape and others rectangular, depending on how many arms meet at that place.

White, even and ribbon-like, 2-5 mm wide and flattened in cross-section. The interior surface may be smooth or have fine wrinkles across the width; the outer surface is typically smooth and may have a central groove running down the length. May have a smooth or fringed edge. Internally, the arms consist of 1-4 thick-walled tubes.

**Gleba:** Olive-brown or sage-green, thick and slimy, carried on the entire inner surface of the arms. Odour described as foetid, of rotting meat or faeces, and “faint, smelling of cheese”.

**Spores:** 3.5-6 x 1.5-3.1  $\mu\text{m}$ , elongate/cylindric, smooth, hyaline or very pale brown.

**Habitat:** Appears on forest litter, compost, woodchip mulch or even house lawns, where it may be solitary or occur in small groups. Fruits year-round in tropical and subtropical areas.

**Notes:** This species has often been confused with *Ileodictyon cibarium*. It is of similar size, shape and colour, but it differs by having much narrower, mostly smooth arms which become noticeably broader at their junction and which are quite flattened in cross-section.

Dring 1980: “According to the observations of Dr R. Hilton, Perth, Western Australia (personal communication) the eggs of this species open explosively and the half-inflated receptacle jumps out of the volva.” *Contributions towards a Rational Arrangement of the Clathraceae* Kew Bulletin, vol. 35, no. 1, p. 58.

Tony Young: “One Qld account detailed a mass eruption of this species on a house lawn,



where the maturing eggs were visible through the grass and from which the lattices began to emerge “explosively” all over the lawn to produce a spectacular display of upwards of 50 lattice-work balls.” *A Field Guide to the Fungi of Australia*, p. 197.

M. Kuo: “One of Australia's more common stinkhorns, *Ileodictyon gracile* looks like a graceful, white cage. Unlike many similar mushrooms, it often detaches itself from its base ... which makes me wonder whether it rolls around like a tiny, stinky tumbleweed in Australian subdivisions.” *MushroomExpert.Com*

## *Itajahya galericulata* Möller, 1895

**Description:** A phallic-shaped stinkhorn with a white stem and cap. On top of the cap is a white ruffle or pom-pom like structure.

It is 90-150 mm tall when fresh.

**Egg:** Described as large and greyish-white in colour.

**Stipe:** White, smooth and sponge-like in appearance, due to the walls consisting of many small chambers. Cylindrical in shape, tapering at both the base and the top. Hollow.

**Cap:** Has a “wig-like” appearance and often appears black after the gleba is gone. Remnants of the volva sometimes remain attached to the cap.

At the top of the cap is a “fluffy”, white structure called the calyptra. It is comprised of fine, white, lamellate plates.



© Dianne Clarke

**Gleba:** Greenish-brown in colour. The odour is strong, but not stinking. It was said by Alfred Möller to be like “yeast dough”.

**Spores:** On average, they are 4 x 2 µm, smooth and hyaline. The spores from the Queensland (Bowra) specimen were larger at 4.5 x 3 µm.

**Habitat:** In Australia - dry mulga country with an annual rainfall of <500 mm.

**Notes:** This fungus was first described by Alfred Möller from Brazil in 1895. It is rarely recorded, but has been found in Bolivia, New Mexico, Arizona, South Africa and central Australia (N.T. & S.A.), where it has not been identified since 1983. The generic name derives from the Itajahy River, in the region of Brazil where it was originally discovered.

## *Lysurus cruciatus* (Lepr. & Mont.) Lloyd, 1909

**Description:** Fruiting body consists of a cylindrical stipe topped by a number of short, vertical arms. To 150 mm in length, up to 20 mm diameter.

**Egg:** White, diameter to 50 mm, with white rhizomorphs at the base. May have vertical grooves in the surface which correspond to the developing arms of the fruiting body inside. The egg remnants are seen as a white-coloured volva at the base of the mature fruiting body's stem.

**Stipe:** Cylindrical – tapering towards the base, sometimes also towards the top, occasionally tending towards polygonal in cross-section in the upper part. Up to 100 mm tall and to 20 mm diameter. May be white, yellowish, pinkish or a creamy buff at the top, graduating to pale cream or white at the base. Hollow, with the cavity to 6 mm diameter and open at the bottom and top, or nearly closed over at the top by a thin, dome-shaped diaphragm. There is a horizontal furrow at the top of the stipe that runs around the circumference, just below the arms. Stipe wall is fragile, consisting of two or three layers of interconnecting tubes or chambers.



© Tom Ryan

**Arms:** 4-7, erect, thick, conical or claw-shaped with three sides, to 40 mm long – sometimes different lengths may be on the same fruiting body. Colour may be amber brown, cinnamon brown, reddish, fleshy pink, orange or white. There is a shallow, smooth furrow or groove that runs down the entire length of the outer surface of each arm, the surface of which is continuous with the stipe below. The diaphragm at the top of the stipe is attached to the lower portion of the arms. Initially, the arms are joined together at the tips, but upon maturity they spread apart and curve slightly outwards, though some may remain joined together. The inner face of the arms is wrinkled horizontally across the surface and covered with the gleba. The arms are hollow and composed of 1-5 regular, thick-walled tubes.

**Gleba:** Olive-brown – becoming darker as it dries, thick, slimy and with a sickly faecal odour. Covers the dome and the inner surface of the arms.

**Spores:** 3-5.4 x 1-2.2 µm, cylindric, smooth, olive green.

**Habitat:** Grows alone or in groups on the ground; often in lawns, gardens, in agricultural fields, under trees, on humus, woody debris, straw and even herbivore dung.

**Notes:** Lloyd, in his *Mycological Notes*, was one of the first to confuse *Lysurus cruciatus* with *Lysurus gardneri*, but he wrote later that he had been informed by Professor Petch that the arms of *Lysurus gardneri* are joined at the top and never free. He admitted that his concept of the genus was in error. Other mycologists since, such as Cunningham (1944) and Bottomley (1948) have also confused *Lysurus cruciatus* with *Lysurus gardneri*. Unfortunately, many people who have referred to their material have picked up and perpetuated this error.

*L. cruciatus* can be clearly identified by the fertile surface of its arms being wrinkled and running the entire inner length of the arm. The arms are usually free and may bend outwards. The fertile surface of *L. gardneri* is quite shaggy in appearance and covers only the upper portion of the arm. The arms are almost always joined together at the top.



# *Lysurus gardneri* Berk., 1846

- Description:** Fruiting body consists of a cylindrical stipe topped by a number of short, vertical arms that are joined together at the tips.
- Egg:** White, up to 30 mm diameter, with white rhizomorphs at the base. The egg remnants are seen as a volva at the base of the mature fruiting body's stem.
- Stipe:** Cylindrical, up to 150 mm tall and 20 mm diameter. May be white to pale cream in colour. Hollow. Stipe wall consists of a single row of thin-walled tubes.
- Arms:** 4-6, relatively short and claw-like, firmly united at their tips but rarely may become free with age. The fertile portion of the arm is quite shaggy in appearance and covers the upper part of the arm, leaving the sterile base bare. A narrow, bare groove runs down the centre of the outer surface of each arm.
- Gleba:** Brown to almost black, carried on the inner and side faces of the upper portion of the arms. Smell not unpleasant.
- Spores:** 4-5 x 1.5 µm, cylindric/bacilliform.
- Habitat:** Grows on the ground in damp, shady places.

**Notes:** Lloyd, in his *Mycological Notes*, was one of the first to confuse *Lysurus gardneri* with *Lysurus cruciatus*, but he wrote later that he had been informed by Professor Petch that the arms of *Lysurus gardneri* are joined at the top and never free. He admitted that his concept of the genus was in error. Other mycologists since, such as Cunningham (1944) and Bottomley (1948) have also confused *Lysurus gardneri* with *Lysurus cruciatus*. Unfortunately, many people who have referred to their material have picked up and perpetuated this error.

*Lysurus gardneri* can be identified by the fertile surface of its arms being quite shaggy in appearance and covering only the upper portion of the arm, leaving the base bare. The arms are also usually joined together at the top.

*L. cruciatus* is identified by the fertile surface of its arms being wrinkled and running the entire inner length of the arm. Its arms are usually free at the top.



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## *Lysurus mokusin* (Cibot ex Pers.) Fr. 1823

**Common Name:** Lantern Stinkhorn

**Description:** Fruiting body consists of an angled or fluted stipe, topped by a number of short, vertical arms that are usually firmly joined at their tips to make a point. To 160 mm high and to 20 mm diameter. Colour white to pink, even reddish.

**Egg:** White, gelatinous texture, to 30 mm diameter, with white rhizomorphs at the base. The egg remnants are seen as a white-coloured volva at the base of the mature fruiting body's stem.

**Stipe:** Fluted with 4-6 angles, with conspicuous ribs between the angles that run the entire length of the stipe and continue up the arms. To 160 mm high and to 20 mm diameter, tapering towards the base. Colour may be white through fleshy-pink to reddish-pink. Hollow, fragile, dry and spongy.



© John Van de Geyn

The stipe is very weak and tends to become arched rather than standing upright. There are conflicting descriptions of the stipe wall: may consist of a single row of thin-walled tubes, or it may be minutely chambered.

**Arms:** 4-6, corresponding to, and appearing to be an extension of, the number of ribs that run up the stipe. Up to 25 mm long, usually fused together at the tips to make a single, bare point, but may break apart with age or damage. They may be bowed outwards to form a “lantern-like” structure. Surface is finely wrinkled. Pink, orange or rose-red in colour. Interior composed of 1-3 thick-walled tubes.

**Gleba:** Light brown to olive-brown and darkening as it dries, thick and slimy, carried in the vertical spaces between the arms – leaving a bare strip down centre of the back of the arm that corresponds to the ribs of the stem. Smell is foetid, of rotting meat or sewerage.

**Spores:** 3.5-6 x 1.5-2.5 µm, cylindric, smooth, hyaline or tinted.

**Habitat:** Appears on forest litter, compost and wood-chip mulch on gardens, lawns, and even on hard-packed soil, where it may be solitary or occur in small groups.

**Notes:** Cunningham thought that this species was probably introduced into Australia and Dring thinks that it may have also been introduced into North America.

Pat Leonard has reported that the Blue-tongued Lizards in his garden not only eat the flies that are attracted to the *L. mokusin* he's found there, but may also eat the fungus.

## ***Mutinus* species in Queensland**

The species that may occur in Queensland include *Mutinus boninensis*, *M. borneensis* and *M. curtus*.

*M. cartilagineus* has been seen in Victoria and could possibly be found here.

We do not have enough reliable information to give a description of any of these species, as most of the literature from the 19<sup>th</sup> and 20<sup>th</sup> centuries was not always based on fresh specimens or verified previous reports.

Information in some Australian books and on websites may not be accurate; much more work needs to be done to sort out the mess that is *Mutinus* taxonomy.



© Megan Prance  
*Mutinus boninensis*



## *Phallus indusiatus* Vent., 1801

- Synonym:** *Dictyophora indusiata*
- Common Name:** White Crinoline Stinkhorn
- Description:** A white stem with a white slime-bearing cap; a white, cream or pale yellow indusium (veil) is suspended beneath the cap, and encircles the stem like a skirt.
- Egg:** The immature fruiting body is a white to pink -tinged, gelatinous egg-like sac to 30 mm round or ovoid, strongly attached to soil by thick strands (rhizomorphs). The egg like sac splits to release the rapidly expanding receptacle (fruiting body) and leaves a volva (sac remnants) at the base.



© Ray Baxter

- Receptacle (mature fruiting body):** to 250 mm high.
- Stipe:** To 200 mm high and to 20 mm diameter, white, smooth, spongy, hollow.
- Pileus (cap):** To 40 mm high and to 30 mm diameter, conical, white, ridged, pitted and with hole in tip. The surface forms a net-like pattern, which at first is covered by the gleba (fertile spore mass) – an olive-brown spore-bearing slime which is cleared by insects.
- Indusium:** White or cream, net-like veil (like a coarse mesh) attached at top of stipe under cap, falls skirt-like down stipe. Sometimes hardly present.
- Spores:** 3-5 x 2-2.5 µm cylindrical, smooth, clear.
- Odour:** Foetid, like rotting meat or sewage.
- Habitat:** It is widespread but not as often recorded as the closely related *Phallus multicolor* Berk. & Broome. It grows on soil, garden mulch and humus; solitary or in small groups.

# *Phallus multicolor* Berk. & Broome, 1882

**Synonym:**

*Dictyphora multicolor*

**Egg:**

The immature fruiting body is a cream-brownish egg shape, to 30 mm diameter, encasing the stinkhorn in a gelatinous substance. White rhizomorphs (root like threads) at the base. The egg like sac splits to release the rapidly expanding receptacle (fruiting body) and leaves a volva (sac remains) at the base.

**Receptacle (mature fruiting body):****Stipe:**

To 230 mm high and to 35 mm diameter, narrowing at both ends, spongy, hollow, white to pinkish or orange.

**Pileus (cap):**

Conical, orange – deep yellow, to 40 x to 30 mm pitted and ridged with a net-like pattern and with a hole in the tip.

This is covered by the gleba (fertile spore mass) – an olive-brown spore-bearing slime, which is cleared by insects, thus exposing a lemon to deep golden yellow surface.

**Indusium:**

A delicate, net-like mesh hangs from the top of the stipe, directly beneath the cap and falls skirt-like to about halfway down the stipe; it can look “inflated” or flared. Lemon or ochre -yellow, orange or salmon coloured.

**Spores:**

3.5 - 4.5 x 1.5 - 2.5 µm, cylindrical, smooth, clear.

**Habitat:**

Solitary or gregarious in forests or urban gardens, woodchip beds. Year round in Qld, common. Often smelled before seen.



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# *Phallus rubicundus* Bosc., 1823

## **Description:**

*Phallus rubicundus* is easily recognised by its vivid pink to scarlet cylindrical stem and conical slime-bearing cap.

## **Egg:**

The immature fruiting body is a white, gelatinous egg-like sac, up to 30 mm diameter, with numerous rhizomorphs (root like threads) attached. The egg-like sac splits to release the rapidly expanding receptacle (fruiting body) and produces the volva (sac remnants) at the base.

## **Receptacle (mature fruiting body):**

### **Stipe:**

To 150 mm high and to 20 mm diameter, pink to bright red, spongy, dry, smooth, hollow. It can be cylindrical, or narrowing towards both ends.



© Vanessa Ryan

### **Pileus (cap):**

A bell-shaped, reddish cap to 38 x 15 mm, slightly wrinkled. It is covered by the gleba (fertile spore mass) - an olive-brown, thick slime which is cleared by visiting insects. The tip may have a hole.

## **Spores:**

4-5 x 2 µm. Elongate ellipsoid, smooth, clear.

## **Odour:**

Foetid, like rotting meat or sewage.

## **Habitat:**

Common and widespread in soil, wood chip mulch, forests and woodland. Can be single or in large groups. The considerable variation in size may be due to prevailing environmental conditions.



## *Pseudocolus fusiformis* (E. Fisch.) Lloyd, 1909

**Common Name:** Eggbeater Fungus, Stinky Squid.

**Description:** Fruiting body consists of a stipe topped by long, vertical arms that are usually fused together at the tips. A small fungus, to 80 mm high and to 30 mm diameter. Colour may be pale or strong pink, yellowish, orange or red.

**Egg:** White, grey, to dark brown; diameter to 30 mm; outer skin smooth or covered with flaky particles; gelatinous interior; with white rhizomorphs at the base. The egg remnants are seen as a whitish to greyish-brown coloured volva at the base of the mature fruiting body's stem. The surface is rough, wrinkled and tough.

**Stipe:** Cylindrical, tapering slightly at the base; short, may be entirely hidden within the volva or extend beyond it; texture spongy; surface rough or pitted; colour almost white at the base and flushing orange or salmon-pink to red at the top. Hollow, composed of a single ring of tubes that sometimes join together or split.

**Arms:** 3-4; vertical; to 60 mm long; tapering upwards; joined at first at their tips but sometimes freeing with age, remaining parallel or arching slightly outwards; tips may also be forked slightly; a low ridge runs down the length of the outer face of each arm; surface finely wrinkled across the width; cream-coloured at the base turning to yellow, orange or red at the top; cylindrical in shape, sometimes compressed to appear 3-4 sided; hollow, interior a single tube with a row of smaller tubes towards the outer surface.

**Gleba:** Thick, slimy, olive-brown drying to almost black. It first fills the space between the arms, later appearing as patches on the inner face of each arm. Smell is foetid, faecal, “a wretched odour”, like “fresh pig manure”.

**Spores:** 3.5-5.5 x 1.5-2.5  $\mu\text{m}$ , cylindric, smooth, hyaline or tinted.

**Habitat:** Grows alone or in groups on the ground in tropical and subtropical rainforests, agricultural areas such as banana plantations, and in parks and gardens – especially in well composted wood chip mulch.

**Notes:** Joan Cribb: “This species can be found in Brisbane, but is more likely to be seen in Lamington National Park. A particularly fine display of large troops has been seen from time to time on a heap of mulch and a mulched garden at O'Reilly's Rainforest Guesthouse in the area; the powerful faecal odour attracts attention even before sighting the specimens.” *Queensland Naturalist* 43 (1-3) 2005, p. 18.



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## *Pseudocolus garciae* (Möller) Lloyd, 1907

**Description:** Fruiting body consists of a stipe topped by long, vertical arms that are usually fused together at the tips. Up to 50 mm high. Colour is white. To quote Lloyd: it looks like “chicken's feet”.

**Egg:** Whitish, splits into three lobes when mature. The egg remnants are seen as a volva at the base of the mature receptacle's stem.

**Stipe:** White, long, smooth, cylindrical, hollow. Walls are unchambered.

**Arms:** 3-4, white, tapered towards the tip, united at the tips, 4-sided. A ridge runs down both sides of the full length of the arms. Interior consists of one large tube that runs along the inner face, backed by three tubes that form the outer portion.

**Gleba:** Carried on the inside of the arms. Smells like decaying fish.

**Spores:** 5 x 1-1.5 µm, bacilliform.

**Habitat:** Rainforest?

**Notes:** This species, so far, has also only been found in Southern Brazil. The above description is from Dring (1980), which he took from Möller.

William Chambers Coker and John Nathaniel Couch: “*Colus Garciae* Möller from Brazil has much the same appearance (as *Pseudocolus fusiformis*), but differs principally in the absence of chambers in the wall of the stem, a remarkable peculiarity for a Phalloid.” *The Gasteromycetes of the Eastern United States and Canada*, 1928, p. 7.

Joan Cribb has described and photographed a similar-looking fungus in Queensland. The 60 mm tall, white, 3 armed fungi were growing with a group of much larger (130 mm), similar-looking but 6-armed fungi. *Variations observed in South East Queensland Stinkhorns*, *Queensland Naturalist* 43 (1-3) 2005; pp. 16-18.

More recently, Megan Prance has also seen and photographed a similar fungus with 4 arms. Some were 80 mm high and others to 140 mm.



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