UF IFAS Extension
UNIVERSITY of FLORIDA

SP228

Mistaken Identities in the Ornamental Plant Nursery Sheet 2[1]

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The purpose of this publication is to describe beneficial or neutral insects, fungi, and other phenomenon that are often mistaken for pests. This publication is intended for nursery managers, homeowners, and those in between to help with proper identification so that informed management decisions can be made.

Predaceous stink bugs (Figure 1). Not all stink bugs are harmful; many species are predaceous beneficials. There are more than 2,000 species worldwide. Stinkbugs are usually oval or shield-shaped and brown, green or gray, but many are highly colored. A common predaceous species in Florida is blue and orange (see EDIS publication EENY-157). Beneficial and pestiferous stinkbugs can be identified by examining their proboscis or beak where it joins the body. Beaks of the predacious species are curved and form an open space between the beak and the body, while plant-feeding species have long, thin mouthparts that fit tightly beneath and against the head. The groove beneath the head serves to hold the beak steady as the stink bug penetrates into the plant. Caterpillars are the primary prey of predacious stink bugs (Figure 2).

Lady beetle larva (Figure 3). These larvae are among the most beneficial insects. Both adults and larvae prey on many pest insects. Most larvae are elongate, somewhat flattened and covered with small spines. They are usually black with brightly colored spots or bands. However, some larvae are white and are mistaken for mealybugs. They may occur intermixed with mealybug populations.

Figure 1. Predaceous stink bug.
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Figure 2. Predaceous stink bug preying on caterpillar.
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1. This document is SP228, one of a series of the Department of Entomology and Nematology, UF/IFAS Extension. Original publication date February 1997. Revised June 2007, February 2021, and June 2024. Visit the EDIS website at https://edis.ifas.ufl.edu for the currently supported version of this publication.

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Figure 3. Lady beetle larva.
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Sooty mold (Figure 4). It is an indicator of past or present insect feeding. Check plant stems and leaf undersides for whiteflies, aphids or scales. If none are found, the insect has come and gone, and sprays are not necessary. Rain or irrigation will eventually wash sooty mold away, but a soapy water spray may help it along.

Figure 4. Sooty mold.
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Nitrogen-fixing nodules (Figure 5). Many plants have beneficial root associations with a variety of soil microbes including bacteria, actinomycetes and algae. These microbes become physically and metabolically linked to plant roots, where they fix gaseous nitrogen in the soil into more available forms for plant use. Such common landscape plants as cycads, *Podocarpus* and Russian olive, *Elaeagnus,* exhibit characteristic root galls. This Frankia gall on *Elaeagnus* is often mistaken for bacterial crown gall disease in this plant.

Figure 5. Nitrogen-fixing nodules.
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Slime mold, *Diachea* sp., on azalea (Figure 6). Among the most primitive fungi is the group known as slime molds. These saprophytes persist in an unorganized thallus that can move short distances. The reproductive cycle for this fungus occurs at some elevation as the vegetative body climbs upward onto leaves or structures and becomes totally reproductive. The thallus develops diversely shaped, colorful structures. These are misidentified as fungal pathogens rather than the short-lived saprophytes that they are.

Figure 6. Slime mold, *Diachea* sp., on azalea.
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Bird's nest fungi (Figure 7). This is one of the most unusual groups of native fungi in Florida. They are saprophytes that colonize organic matter, and thus become commonplace in the bark-based growth media used in nursery production and in mulch used in landscapes. Their sexual reproduction occurs in a nest-like structure (2 mm to 6 mm (1/16 – ¼ in)) with one or more "eggs." The structure pictured is representative of such common bird's nest genera as *Cyathus* and *Crucibulum.*

Figure 7. Bird's nest fungi.
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Another common bird's nest genus is *Sphaerobolus* (Figure 8). This genus forms a superficial crust of mycelium with small, single-egged nests. Spores of the bird's nest fungi are forcibly ejected into the air by changes in air pressure or by water-splash.

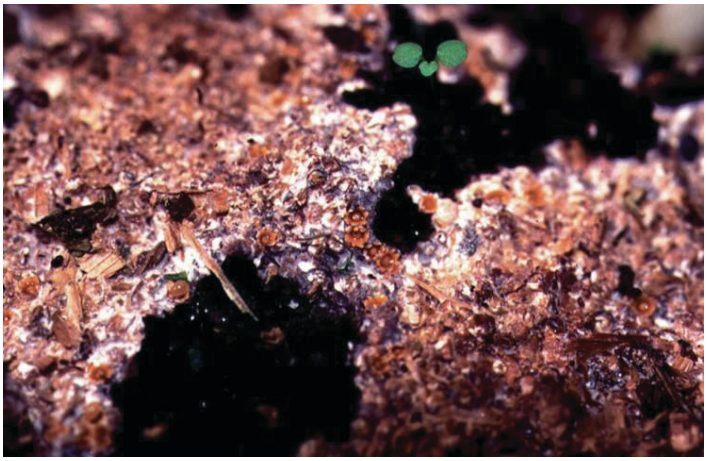

Figure 8. *Spaerobolus*, another common genus of bird's nest fungi.
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Bird's nest fungal "egg." (Figure 9). A typical bird's nest egg, or spore, is shot several feet out of the nest. The size and color of the adhesive spore is similar to that of a scale insect. Spores adhere to plants in nurseries and in the landscape and may be mistaken for scale insects.

Saprophytic fungi (Figure 10). The vast majority of macroscopic fungi are saprophytes on organic matter such as the milled bark component of most nursery media. These fungi are airborne and can colonize bark supplies readily. After a period of saprophytic growth, these fungi reproduce as puffballs or mushrooms, and can be mistaken for disease-causing fungi.

Figure 9. Saprophytic fungi.
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Figure 10. Saprophytic fungi.
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