

This is a PDF version of PECKHAMIA 1(2): 18-21, May 1977. Pagination of the original document has been retained. Editor's Note [8.1]: A second photograph of the same spider, taken at the same time by G. B. Edwards, has been substituted for the original photograph in Fig. 1. Many of the names used in this paper have been revised since 1977 (*Corythalia aurata* > *Anasaitis canosa*, *Habrocestum* > *Naphrys*, *Metaphidippus* > *Ghelna*, *Pellenes* > *Habronattus*, *P. tachypodus* > *H. carolinensis*). *Habrocestum* new species (Fig. 1) is now *Naphrys xerophila* (Richman 1981).

THE JUMPING SPIDERS OF LEAF-LITTER IN FLORIDA. David B. Richman

Over the past 3 years, G. B. Edwards and I have sifted and searched through various litter types, primarily in north and central Florida, and have found that this state contains perhaps the greatest number of species of leaf-litter salticids in the United States. This diversity of species is made possible by the subtropical climate acting on numerous and varied forest types, which in some cases possess deep, stratified leaf-litter. The litter fauna includes our smallest salticids (1-3 mm species of *Corythalia*, *Habrocestum*, *Neon*, *Neonella* and *Sitticus*) as well as some of medium size (4-7 mm species of *Corythalia*, *Paramaevia*, *Pellenes*, *Phlegra*, etc.). Each type of leaf-litter has characteristic species of jumping spiders, with some species overlap. The leaf-litter habitat is shared with numerous lycosids and micryphantids. I am presenting here a list of Florida habitats, along with the characteristic leaf-litter salticids. Most of the Florida habitat designations used are based on those of Laessle (1942).

XERIC HABITATS

1. Sand-Pine (*Pinus clausa* (Engelm.) Vasey) Scrub Association. The sand-pine scrub is associated with rapidly draining St. Lucie fine sand. The major area of this xeric habitat is the "Big Scrub" of Marion County. Other stands of sand-pine occur in Martin, Highlands and Levy Counties and in a few other scattered localities around the state. The litter on the forest floor consists of sand-pine needles, scrub oak (*Quercus* spp.) and *Lyonia* spp. Leaves, and rosemary (*Ceratiola ericoides* Michx.) litter. Lichens (*Cladonia* spp.) are also abundant. The litter is usually only a few leaves deep. Most of the species of salticids were collected on the surface of the litter. These species included *Habrocestum* n. sp. (Fig. 1), *Pellenes elegans* Banks, *P. tachypodus* (Chamberlin and Ivie), *Pellenes* n. sp. and *Phlegra fasciata* (Hahn).



Fig. 1. *Habrocestum* new species, male (ca. 2 mm). Photo by G. B. Edwards.

2. Sandhills (*Pinus palustris* Miller, *Quercus laevis* Walter) Association. Most of the longleaf pine (*P. palustris*) has been cut during the past years, leaving nearly pure stands of turkey oak (*Q. laevis*) with saw palmetto (*Serenoa repens* (Bartram) Small), rosemary (*Ceratiola ericoides*) and occasionally other shrubs in the understory. In some areas, a few live oaks (*Q. virginiana* Miller) may be found. The litter consists primarily of turkey oak leaves. Some lichens (*Cladonia* spp.) and clumps of grass occur on the soil surface. The leaf-litter is usually very shallow, as in the sand-pine scrub. The salticids collected in turkey oak litter, mostly in Alachua and Levy Counties, included *Corythalia aurata* (Hentz), *Habrocestum* n. sp., *Marpissa sulcosa* Barnes, *Paramaevia michelsoni* Barnes (probably this species should be returned to the genus *Maevia*), *Pellenes tachypodus*, *P. trimaculatus* (Bryant) (Fig. 2), *P. cf. viridipes* (Hentz) (this species differs from *P. viridipes* in that males lack any modification on the third legs), *Phlegra fasciata* and *Sitticus cursor* Barrows. Most of the species were taken on the surface of the leaf litter, primarily during late winter and spring. *Phlegra fasciata* and *M. sulcosa*, however, were usually seen running under the litter.



Fig. 2. *Pellenes trimaculatus* (Bryant), male (ca. 5-6 mm). Photo by G. B. Edwards.

3. Oak Litter on Sea Beaches. Two species of salticids have been collected on live oak (*Quercus virginiana*) litter just above high tide on Seahorse Key, Levy County: *Habrocestum* n. sp. And *Pellenes agilis* (Banks).

4. Disturbed Xeric Communities (Areas of disturbed woodland with turkey oak and hickory (*Carya* sp.) dominant). The litter on the ground is mostly from these trees. The ground is covered with hummocks of grass; blackberry bushes (*Rubus* sp.) are commonly present. Salticids collected in these habitats in Alachua County included *Habrocestum* n. sp., *Pellenes elegans*, *P. trimaculatus* and *P. cf. viridipes*.

MESIC HABITATS

1. Mesic Hammock (*Magnolia grandiflora* L., *Ilex opaca* Ait.) Association. True mesic hammocks are becoming increasingly difficult to find because of development, and most are disturbed in some way. The best example can be seen

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at San Felasco Hammock (Alachua County). Most of the hardwood forests with a distinct canopy are characterized by only a few salticid species. Jumping spiders collected in mesic litter (mostly in Alachua and Putnam Counties) included *Corythalia aurata*, *Habrocestum bufoides* Chamberlin and Ivie and *Sarinda hentzi* (Banks). All were collected on the surface of the litter, which consisted mostly of hardwood leaves.

HYDRIC HABITATS

1. Bayhead (*Gordonia lasianthus* (L.) Ellis, *Persea borbonia* (L.) Sprengel, *Magnolia virginiana* L.) Association. Bayheads are found on very poorly drained soils, and contain very deep litter (in one case more than 10 cm deep) from various species of bays and often from slash pine (*Pinus elliottii* Engelm.). In Highlands County, this litter contained *Corythalia aurata*, *Marpissa sulcosa* and *Neonella vinnula* Gertsch. The latter 2 species were sifted out of the middle layers of the litter.

2. Cypress Swamp (*Taxodium distichum* (L.) Richards) Association. Often ponds among slash pine and mixed hardwoods. The forest floor at one cypress pond in Alachua County contained very deep (ca. 10 cm) litter of slash pine and some hardwoods; this site was found to have one of the most diverse salticid faunas of any of the litter habitats examined. Species found at this locality included *Corythalia aurata*, *C. delicatula* Gertsch and Mulaik, *Marpissa sulcosa*, *Metaphidippus castaneus* (Hentz), *Neon nelli* Peckham and Peckham, *Neonella vinnula*, *Sarinda hentzi*, *Sitticus cursor* and *Zygoballus bettini* Peckham and Peckham. *Marpissa sulcosa*, *Neon nelli* and *Neonella vinnula* were collected primarily by sifting middle and lower levels of litter (the lower levels were quite damp and rotted). *Neon plutonus* Gertsch and Ivie (which was described from Gainesville, Alachua County in 1955) was not collected.

PINE FLATWOODS

1. Slash Pine (*Pinus elliottii*) Association. Damp flatwoods with scattered hardwoods such as laurel oak (*Quercus laurifolia* Michaux.) and water oak (*Q. nigra* L.). The litter consists primarily of slash pine needles and oak leaves, and is not so deep as hydric litter. Salticids collected in Alachua County included *Corythalia aurata*, *C. delicatula*, *Habrocestum bufoides*, *Habrocestum* n. sp. (usually in or near clearings), *Maevia inclemens* (Walckenaer) (immatures; adults found on saw palmettos), *Marpissa sulcosa*, *Neon nelli*, *Phlegra fasciata* and *Sarinda hentzi*. Many species, with the exception of *C. delicatula*, *M. sulcosa*, *N. nelli* and *P. fasciata*, were collected on the surface of the litter.

DISTURBED HABITATS

Some quite disturbed sites around Gainesville, Alachua County, which are difficult to categorize as to floral types are included here. The litter is mixed, often including materials from herbs, shrubs and grasses. Salticids collected included *Corythalia aurata*, *Habrocestum bufoides*, *Habrocestum* n. sp., *Metaphidippus castaneus*, *M. sexmaculatus* (Banks), *Neonella vinnula*, *Pellenes brunneus* Peckham and Peckham and *P. trimaculatus*. The litter, which varies in degree of dampness and depth, thus contains a mixture of xeric, mesic and hydric species. *Corythalia aurata* seems to occur in most litter types, but has been found in the greatest abundance in flatwoods. *Pellenes brunneus*

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lives primarily on low grasses and herbs, but often is found in grass litter.

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