

A UNIQUE NEW NORTH AMERICAN SPECIES OF PINE-  
CONE-FEEDING *LASPEYRESIA* RELATED TO *L. INGENS*  
HEINRICH (LEPIDOPTERA, OLETHREUTIDAE)

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In their investigations of pine cone and seed insects, U. S. Forest Service entomologists at the Southeastern Forest Experiment Station have reared a species of *Laspeyresia* which is undescribed. The orange-like coloration of the moth distinguishes this species immediately from all other known members of the genus; no other described species of *Laspeyresia* approaches such a hue. *Laspeyresia ingens*, which is a superficially gray moth, appears to be the nearest relative. The new species is described below and given the specific name *anaranjada*, the Spanish adjective meaning orange.

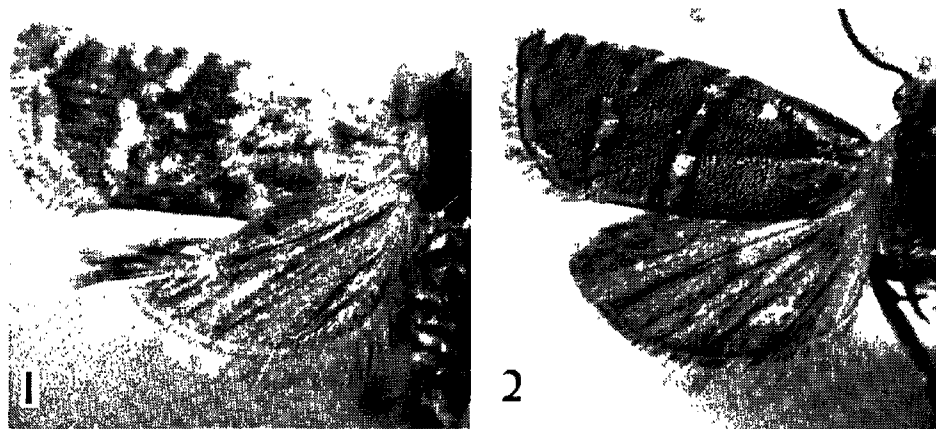


Figure 1. Adult of *Laspeyresia anaranjada* from Sarasota Co., Florida.  
Figure 2. Adult of *L. ingens* from Dare Co., North Carolina.

*Laspeyresia anaranjada*, new species

Wingspan 16.0 mm.

Labial palpus, head, and collar beige; antenna slightly lighter beige. Patagium and upper side of thorax beige, faintly tinged with rust. Under-side of thorax pearl-white.

Forewing light rust with four more or less equally spaced, mostly pearl-white crossbands, the apical one being situated just inside termen. Between the apical and the next crossband are two partial crossbands which extend back from the leading edge of the wing 1/7 of its width in that area. The second crossband inward from the apex has a slight break just costad of the middle of the wing. Lead-colored scales comprise the apical edges of much of the second crossband and a little of the third. Two more partial

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crossbands originate on trailing edge between the two middle crossbands and extend forward  $\frac{1}{8}$  the width of the wing in that area. The innermost crossband not as distinct as the other three. Cilia of fore- and hindwings pearl, tinged with brown.

Hindwing covered with rust-tipped beige scales. Undersides of wings beige, slightly darker in the forewing than in the hindwing.

Legs pearl-white except for outer sides of tarsal segments which are beige with white apical bands. Abdomen pearl-white.

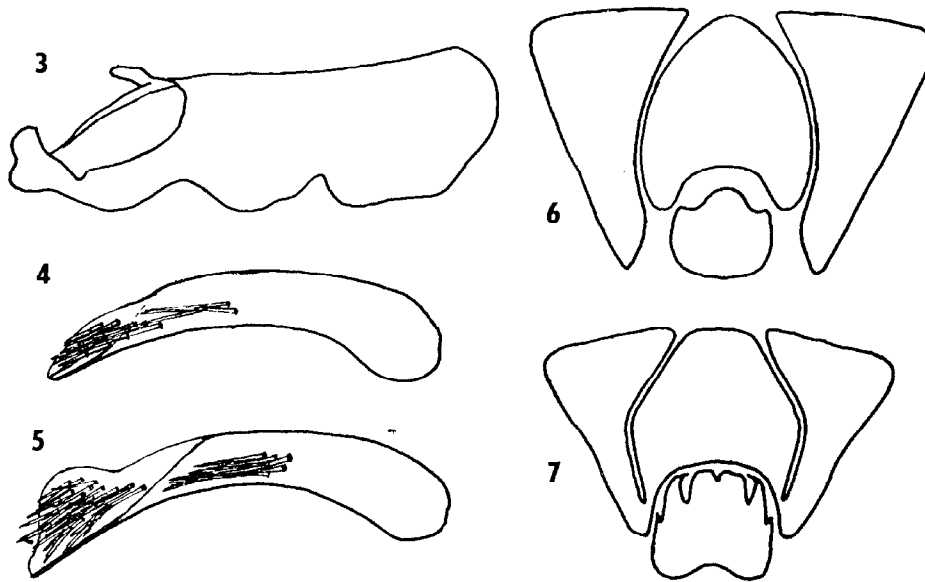


Figure 3. Valva of *Laspeyresia anaranjada*.  
 Figure 4. Aedeagus of *L. anaranjada*.  
 Figure 5. Aedeagus of *L. ingens*.  
 Figure 6. Genital plate of *L. anaranjada*.  
 Figure 7. Genital plate of *L. ingens*.

Variations from the above description of the holotype female were found among the four paratypes as follows: The labial palpus, head, antenna, and collar may be much lighter in color, approaching pure white. The second crossband inward from the wingtip may be broken more than once and hence consist of several segments (Figure 1). Also, the forewing may have a half dozen or so small patches of silvery white scales of the same kind as comprise the crossbands. Finally, tarsal segments may be brown with white bands rather than beige with white bands.

The species is described from the female type (U. S. National Museum Catalog Number 64675) which has label data as follows: "Cordele, Ga. 5/21/50, *Pinus palustris* cones, C. F. Speers Collector, ♀ genitalia slide 2.VI.58 W. E. Miller." The town of Cordele is in Crisp County.

Four specimens with label data as follows are designated paratypes: (1) "Cordele, Ga. 5/22/50, C. F. Speers Collector, *Pinus palustris* cones, ♂ genitalia on slide 19.IX.1950 J.F.G.C. 9737"; (2) same label data except 5/20/50; (3) same label data except 5/17/50; and (4) "Archbold Biol. Sta.

Highlands Co., Fla., VI:12-19:55; at light, Coll. by A. K. Wyatt, 14056, ♂ genitalia slide 6.XI.58 W. E. Miller."

Also seen were seven other specimens from Cordele, Georgia, and Siesta Key (Sarasota County), Florida. All material is in the U. S. National Museum. A better characterization of the species would probably have resulted from the same number of specimens in better condition than the available ones.

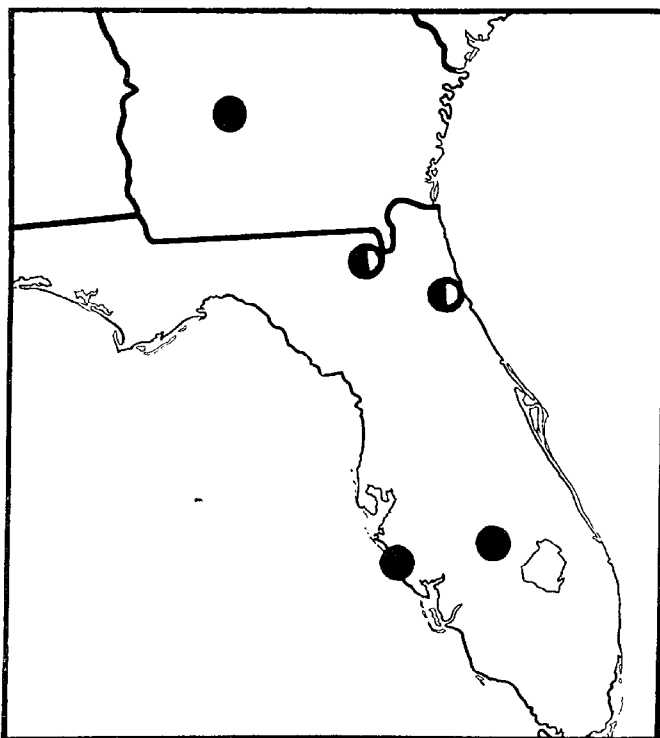


Figure 8. Known distribution of *Laspeyresia anaranjada*. Solid points are records based on specimens seen; other points are records based on specimens in the collection of the Southeastern Forest Experiment Station (E. P. Merkel, in correspondence).

The wingspans of 2 *Laspeyresia anaranjada* males were 14.0 and 15.0 mm., and those of 7 females averaged 15.9, ranging from 15.0 to 17.0 mm.

Genitalia of three males from Siesta Key, Cordele, and Archbold Biological Station and of three females from Cordele and Siesta Key were studied. The male valva and aedeagus are shown in Figures 3 and 4 and the female genital plate in Figure 6. These structures appeared to be the genitalic ones with the greatest diagnostic value.

*Laspeyresia anaranjada* differs in many ways from *L. ingens* (Figure 2), but the most striking is coloration. Another difference lies in the shape of the valvae. The middle lobelike process seen in the valva of *L. anaranjada* may be either completely lacking or much reduced in *L. ingens*. There are different numbers of cornuti, ranging from 3 to 4 in *L. anaranjada*

compared with 8 to 11 in *L. ingens* (Figure 5); different numbers of apical spines on the aedeagus, there being 12 to 14 in *L. anaranjada* compared with about 30 in *L. ingens*; and a difference in the shape of the genital plate (Figures 6 and 7) (genitalia of one *L. ingens* female (paratype) seen from St. Petersburg, Pinellas County, Florida, and four *L. ingens* males from Kill Devil Hills, Dare County, North Carolina, and St. Petersburg, Florida). Female genitalia of *L. ingens* have been illustrated by Heinrich.<sup>2</sup>

*Laspeyresia anaranjada* moths have emerged from about mid-March till mid-May, and they have been reared from larvae infesting mature cones of slash pine, *Pinus elliottii* var. *elliottii* Engelmann (E. P. Merkel, in correspondence) and longleaf pine, *Pinus palustris* Miller.

The known geographic distribution of *Laspeyresia anaranjada* is southern Georgia and Florida (Figure 8). It probably has a wider distribution, however, since the hosts which it is known to attack occur over a much larger area.

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<sup>2</sup> Heinrich, C. 1926. Revision of the North American moths of the subfamilies Laspeyresiinae and Olethreutinae. U. S. Nat. Mus. Bul. 132: 1-216.

