

Scientific Note

An Introduced Clerid, *Paratillus carus* (Newman) (Coleoptera: Cleridae),
Preying on *Lyctus brunneus* (Stephens) (Coleoptera: Lyctidae)
in California Live Oak

Paratillus carus (Newman) (Coleoptera: Cleridae) is native to Australia (Gorham, 1878, Trans. Entomol. Soc. London, p. 157) and established in Great Britain (Hinks, 1950, Coleopt. Cat. Suppl., 23:299). Our collection of this beetle in Santa Cruz County in September, 1984, is the second from California (W. F. Barr, pers. comm.).

We recovered living specimens of *P. carus* from California live oak (*Quercus* sp.) firewood purchased in Santa Cruz County, California, and stored in a residential garage in the town of Aptos. This wood also contained larvae and adults of the cosmopolitan powderpost beetle *Lyctus brunneus* (Stephens) (Coleoptera: Lyctidae), and had been extensively mined. Adult *P. carus* were found both within lyctid galleries and on the wood surface.

When an adult *L. brunneus* was placed in a 9 cm petri dish containing an adult *P. carus*, neither beetle indicated any recognition of the other. The lyctid was deposited at the center of the dish and walked outward, while the clerid attempted to climb the side of the dish. However, on crossing the path taken by the lyctid, *P. carus* abruptly stopped, turned toward *L. brunneus*, ran down the 3 cm trail and grasped the lyctid by the abdomen with mandibles and forelegs. Rather than displaying the typical disturbance response of feigning death, *L. brunneus* demonstrated a frantic escape reaction of rapid leg movements. It proved difficult to separate the lyctid from the grasp of *P. carus*. These observations indicate a predator-prey relationship and suggest kairomonal mediation of the clerid's initial response.

An extensive *L. brunneus* infestation was found in the kitchen cabinetry adjacent to the garage in this same residence. This suggests the intriguing possibility of *P. carus* acting as a predatory biological control agent in structural timbers as well as in nature. Similar relationships are well documented in Great Britain, where clerids are common predators of anobiid and lyctid beetles infesting structures (Hickin, 1975, The insect factor in wood decay, Associated Business Programmes, London).

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