GENERAL NOTES

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MYNES GEOFFROYI GUERINI WALLACE (NYMPHALIDAE) PARASITIZED BY A TACHINID FLY

Mynes geoffroyi guerini Wallace, the white nymph, is a poorly studied nymphalid that occurs in coastal rainforests sporadically from the Claudie River in northern Queensland to near Ballina, northern New South Wales (Common & Waterhouse 1981, Australian butterflies, Angus & Robertson, 651 pp.). The larvae are gregarious and feed exclusively on the young foliage of the tall stinging trees *Dendrocnide moroides* (Wedd.) Chew and *D. photinophylla* (Kunth) Chew, and the nonstinging rainforest shrub *Pipturus argenteus* (Forster) Wedd. (Common & Waterhouse, cited above). There are four Australian species of *Dendrocnide*, while *Pipturus* is only represented by one species; both genera are from the stinging nettle family Urticaceae.

On 25 May 1985 I collected one larva of *Mynes geoffroyi guerini* from a young leaf of a mature *P. argenteus* in disturbed rainforest near Mt. Coot-tha, about 5 km W of Brisbane, Queensland. The larva, a last instar, had a fly egg behind the head. Another nine larvae were observed, but close examination showed they had not been parasitized. The parasitized larva as well as three unparasitized ones were taken to the laboratory and placed in a plastic bag with fresh leaves of the food plant. The parasitized larva pupated on 27 May. Two days later, it displayed no movement when handled (normal, healthy pupae of *M. g. guerini* usually thrash their bodies wildly about for up to 20 seconds if disturbed) and was subsequently broken to disclose an active fly maggot, which pupated 1 June 1985. Length of the fly pupa was 6.8 mm. The other butterfly larvae were reared successfully to the adult stage. The fly emerged on 6 July, after 35 days in the pupal stage. The fly was deposited in the collection of the Entomology Department, Department of Primary Industries (DPI), Indooroopilly, Queensland, and was identified by Dr. B. K. Cantrell of that Department as *Compsilura concinnata* (Meigen) (Tachinidae).

This appears to be the first published record of fly parasitism of *M. geoffroyi guerini*. *Compsilura concinnata* has been recorded as a parasite of the following Australian moths by Crosskey (1973, Bull. Brit. Mus. Nat. Hist. (Entomol.) Suppl. 21:1–221)—*Doratifera vulnerans* Lewin (Limacodidae) and *Anomis xanthindyma* Boisduval and *Brithys crini* (Fabricius) (both Noctuidae). Recently, Chadwick and Nikitin (1985, Aust. Zool. 21:587–598) recorded the Australian moth *Isotenes miserana* (Walker) (Tortricidae) and the introduced butterfly *Artogeia* (*Pieris*) *rapae* (L.) (Pieridae) as pupal hosts of *C. concinnata*.

The parasitoid fly *C. concinnata* has a widespread distribution, and is known from the Palearctic region (including Japan), Africa, the Oriental Region to Australia, and has been introduced into North America (Arnaud 1969, Pan-Pacific Entomol. 45:77; 1978, USDA Misc. Pub. No. 1319:149–168). The species is one of the most widely reared parasites of Lepidoptera in Europe (Herting 1960, Mono. Ang. Entomol. Nr. 16:55–57) and North America (Arnaud, cited above). These authors each record over 100 species of lepidopteran hosts from a wide range of families and genera of butterflies and moths, indicating that *C. concinnata* is a generalist and opportunistic fly in larval feeding habits and the type of habitat frequented. Although Australian host records are scanty, they do show similar trends of nonspecificity to any one group of Lepidoptera.

The pupal duration of 35 days of *C. concinnata* recorded here is considerably longer than the 11–14 days recorded for another tachinid fly parasite of Australian butterflies, *Winthemia neowinthemioides* (Townsend) (Smithers 1973, Aust. Entomol. Mag. 1:37–40; Hawkeswood 1986, in review). Whether this longer pupation period results from species-specific differences or is due to the colder conditions under which *C. concinnata* was reared (during winter) awaits further research.

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