

September 16, 1977

Mr. Brian Giezentanner  
U.S. Fish & Wildlife Service  
Box 50167  
Honolulu, HI 96850

Dear Mr. Giezentanner:

Mr. George Balazs has just given me a specimen of a large grasshopper which he collected on Necker Island on August 24, 1977. He reported seeing numerous grasshoppers of this type both on Necker and on Nihoa which he visited on Aug. 17.

The grasshopper is a specimen of Schistocerca nitens nitens Thunburg, a North American form which was first found established in the main Hawaiian Islands during 1965. Although this species has not developed into a major agricultural pest in Hawaii, it belongs to a genus of grasshoppers which contains a number of serious pest species. It is quite possible that biological factors, such as the predacious ant, Pheidole megacephala (Fabricius), may be controlling it on the main islands. It is also possible that in the relatively simple terrestrial ecosystems of Nihoa and Necker, this grasshopper may build up sufficiently large populations to cause serious damage to the vegetation. I believe that you should be aware of the potential this grasshopper may have for causing serious damage to the flora of Nihoa and Necker so that you and your assistants can keep an eye open for large populations, and also for any changes in the condition of the vegetative cover on these islands which could be caused by it.

To my knowledge, the last insect survey of the HINWR islands was made by me in 1964. As I pointed out in a 1966 paper on insects of the Leeward Hawaiian Islands (copy enclosed), these small islands are very vulnerable to invasion by new insect pests. May I suggest that you consider including a qualified entomologist on one of your field trips to these islands, within the next year or two? I believe it would be prudent to resurvey the insect faunas of the HINWR islands to assess the status and impact of the new grasshopper and to determine whether other new pests have become established on these islands.

Yours sincerely,

John W. Beardsley  
Entomologist & Professor

Enc.

cc: George Balazs

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considered to be established in Hawaii. J.W. Beardsley.

**Schistocerca nitens nitens** Thunburg: Mr. George Balazs, Univ. of Hawaii, Institute of Marine Biology, submitted an adult female specimen of the vagrant grasshopper, *Schistocerca nitens nitens* Thunburg, which he collected on Necker Island in the Leeward Hawaiian Island group on August 14, 1977. The specimen was determined by Dr. Beardsley. Mr. Balazs reported seeing numerous adults of this immigrant grasshopper on Necker and also on Nihoa Island. Necker is a confirmed new island record for *S. nitens*, but specimens from Nihoa are needed for confirmation. The possibility exists that large populations of this grasshopper could develop on these isolated leeward islands and cause serious damage to their vegetation. J.W. Beardsley.

**Meteorus** sp.: Dr. Beardsley exhibited two specimens of a braconid wasp which he has determined as a *Meteorus* sp. not previously known from Hawaii. Both specimens were collected in a light trap at Kailua, Oahu. The first was taken on July 22, 1977 and the second on October 8. The most common *Meteorus* species in Hawaii is *M. laphygmae* Viereck. *M. humilis* (Cresson) and *M. sp.* near *icterius* Nees are known to occur in Hawaii only on Maui. The species reported here is none of these, and apparently represents a recently established immigrant. J.W. Beardsley.

**Leucania striata** Leech: At the September meeting I reported on a newly discovered immigrant noctuid moth which had been determined by Dr. E.L. Todd, USDA Insect Identification Laboratory, as *Leucania* sp. probably *insecuta* Walker. At Dr. Todd's suggestion I sent a pair of specimens of this moth to Dr. Klaus Sattler at the British Museum, for comparison with the types of *L. insecuta* and related forms. Dr. Sattler has written to me concerning these specimens in a letter dated October 4, 1977 as follows:

"Mr. A.H. Hayes and I have examined your specimens, and believe they are *Leucania striata* Leech. Hampson synonymized *striata* with *insecuta* Walker. However, they appear to be distinct species.

Ogata's figures (Icones....) represent *striata* as Todd suspected. The genitalia figure is rather crude, but it agrees well enough with the type of *striata*. The clasper plate of your specimen differs slightly from that of the type. Without a proper taxonomic study it is difficult to say what the significance of this difference is. I suspect it merely means that the type and your specimens originated from different geographic areas.

According to our information, *striata* is known only from Japan."

The "Icones" reference mentioned above is according to Todd, Ogata in Esaki et al. 1958, Icones Heterocerorum Japonicorum in *Coloribus Naturalibus*, p. 90, Fig E, Pl. 91, fig. 1986.

Since *L. striata* was synonymized with *L. insecuta* by Hampson (1905, Cat. Lepidoptera Phalaenae in British Museum, 5:534), and apparently has not been resurrected from synonymy before now, its use here constitutes a renewed status for this name which should be credited to Hayes and Sattler. Reference citations for the original description of *L. striata* is: Leech, 1900, Trans. Entomol. Soc. London for 1900, p. 127 J.W. Beardsley.