

CULICOIDES MOLLIS EDWARDS (DIPTERA :
CERATOPOGONIDAE) ON AITUTAKI ISLAND,
COOK ISLANDS

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Dr. P. B. Thompson, Medical Officer of Health, Rarotonga, Cook Islands, forwarded, through Mr. K. A. J. Wise of the Auckland Museum, specimens of a biting midge from Aitutaki Island. These were identified as *Culicoides mollis* Edwards and the identification was confirmed by Dr. P. Freeman who kindly compared some of the specimens with the cotypes in the British Museum. The cotypes are gravid females and the abdominal tergites, though appearing to occupy a smaller area of the segments, have approximately the same proportions as the Aitutaki specimens. The female was described by Edwards (1928) but the male is unknown. The cotypes were collected at Apia, Western Samoa, and Edwards also mentioned specimens from Natova on the island of Viti Levu in Fiji.

The midge is stated to be an avid biter, causing pain and irritation followed by the formation of a vesicle 4-5 mm in diameter surrounded by an area of inflammation. The specimens seen were collected 20.x.65, on Ootu Beach near the southern end of the airstrip. The midge is stated to be more numerous in and around the houses in the village of Vaipae than in the surrounding secondary bush and food plantations.

The type specimens were collected from a sandy beach at Apia which was probably the breeding site. It is not possible to determine the exact locality from which the Fijian species were collected but it also is likely to have been coastal. Mr. B. E. V. Parham informs me that a biting midge occurs on the coast of Viti Levu. The Ootu Beach locality is sandy and if no brackish pools exist there is a possibility that breeding may take place in the sand where the fresh water lens under the soil of the atoll meets the lagoon water. The midges infesting Vaipae may also come from the beach about a quarter mile away since the soil map indicates the presence of the same Muri sands as occur at Ootu Beach. Another Pacific species *C. pelilouensis* Tokunaga breeds in wet sand at the margins of brackish lagoons in the Palau Islands (Dorsey, 1947).

C. mollis has not previously been reported from the Cook Islands. It is a new pest in the experience of the inhabitants of Aitutaki and apparently is recently established. According to Dr. Thompson the midge is reported to be present also on some other (unnamed) islands in the Cook group. Since there is an airport on Aitutaki and the island was previously a stopping place for flying boats the midge may have gained entry on aircraft from either

Western Samoa or Fiji. **C. pelilouensis** was reported (Gressitt, 1954 p. 191) as having established on Truk Is., Caroline Islands, during or after World War II, probably by transfer on aircraft.

REFERENCES

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- GRESSITT, J. L., 1954: Insects of Micronesia, Vol. 1. Introduction. Bishop Museum. 257 pp.