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March 1977

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- t: Medical Entomological Surveillance of Enewetak Atoll

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1. GENERAL:

- a. By the direction of DASG a medical entomological survey was conducted on selected coral islets of the Enewetak Atoll to determine all real and potential entomological problems to be encountered during cleanup operations.
- b. Biologically and ecologically the islets are still ~~evolving~~ and represent a fragile and unstable biological community. The introduction of higher animal life forms has been artificial. This situation has allowed a number of species to inhabit the islets unchecked by natural predation.
- c. A variety of factors have successfully limited the the establishment of various pests.
 - 1) Limited accessability of the islets.
 - 2) High winds.
 - 3) Limited land area, breeding sites, appropriate food sources and harborage.
- d. These factors have, for the most part, restricted the establishment of medically important arthropoda on the islets.

2. METHODOLOGY:

- a. A total of 12 islets were selected for surveillance. Selection was based on the following criteria:
 - 1) Size.
 - 2) Vegetation and structural harborage.
 - 3) Operational aspects related to cleanup mission.
 - 4) Information provided by Mid Pacific Marine Laboratory (MPML) civilians and natives.
 - 5) Information provided by engineers surveying various islets.

- b. Each islet was surveyed identically. Walk-through surveillance with insect nets and collecting equipment was conducted. All possible breeding sites and harborages were sampled. Light traps were set out in areas where wind shelter was provided to sample nocturnal activity. Rodent surveillance was visual and with traps. Have-a-Heart traps were set in association with burrows, nests, high activity areas and harborage.
- c. Laboratory areas provided by Mid Pacific Marine Laboratory (MPML) and equipment indigenous to the survey teams provided ample work and identification requirements. Insect identifications were made microscopically with the use of appropriate keys.
- d. The following islets were surveyed:
 - 1) Enewetak (Fred)
 - 2) Modren (Walt)
 - 3) Jedrol (Rex)
 - 4) Japtan (David)
 - 5) Ananij (Bruce)
 - 6) Runit (Yvonne)
 - 7) Billae (Wilma)
 - 8) Alembel (Vera)
 - 9) Lojwa (Ursula)
 - 10) Aomon (Sally)
 - 11) Aej (Olive)
 - 12) Enjebi (Janet)

3. RESULTS:

- a. The predominant problem on the atoll is the large population of rats. Two species of rats were noted.
 - 1) Rattus rattus (roof rat)
 - 2) Rattus exculaus (Polynesian rat)