



**Sex ratio (male : female) in field samples of *Belgica Antarctica* taken on Bonaparte Point, Anvers Island, Antarctic Peninsula throughout emergence season 1978.**

batches, emerged nearly simultaneously, and we collected 16 separate population samples. Of 1,586 exuviae, 47 percent were males, giving a sex ratio of 0.89 ♂:1 ♀. Thus, the sex ratio at emergence approximates unity.

The male predominance in surface samples of adult aggregates may have two causes—microhabitat choice and differences in longevity. We checked the first of these probable causes by collecting adults from subsur-

face spaces using a suction device that could be inserted into small cavities opened by dissection of the substratum. The sex ratio of the combined samples so obtained (168♂:129♀ or 1.3:1) more closely approximates sex ratio at emergence. In addition, preliminary data indicate that males may live twice as long as females, which expire shortly after the single bout of oviposition. Thus longevity also may contribute to the bias of surface samples.

It would appear then that the surface aggregations of *Belgica* do not signify an aberrant sex ratio but are the equivalent, for a flightless species, of the mating swarms of winged chironomids in which males predominate and from which females depart after insemination.

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## Insect landings on R/v *Hero* at sea off Argentina

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On 8 January 1979, numerous insects were collected as they landed on R/v *Hero*, which was en route from Montevideo to Palmer Station, Antarctica.

These landings occurred between 42°15'S/55°40'W and 44°40'S/56°12'W as the ship was proceeding southward at 9.5 knots. A steady wind of 12 to 14 knots was blowing from the north-northwest.

During the daylight hours, the insects landed at a rate of about six per hour; the highest rate was reached

around 11:30 a.m. when there was one landing every 3 to 5 minutes. At sunset, 28 moths were present on the mainsail and 13 more on the foresail.

Through extrapolation of wind directions, it is estimated that the insects had been carried by the wind from a region of Argentina lying between Mar del Plata and Cabo Corrientes (38°S/57°30'W). Assuming constant wind conditions and airspeeds of up to 6 kilometers per hour, the insects would have been aloft for between 12 and 20 hours and would have traveled approximately 450 kilometers.

The collected material consists of numerous moths (family Noctuidae, 4 spp.; 1 unidentified family), two beetles (Coccinellidae, Carabidae), and one water bug (Notonectidae). The material has been submitted for identification.

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