

AIRBORNE *NABIS CAPSIFORMIS* (HETEROPTERA: NABIDAE) FROM THE ATLANTIC, INDIAN, AND PACIFIC OCEANS

I. M. Kerzhner¹

Abstract. All Nabidae collected in aerial traps over the Atlantic, Indian, and Pacific oceans were found to be *Nabis (Tropiconabis) capsiformis*. It is a species distributed in nearly all tropical and subtropical regions, including remote oceanic islands. Aerial trapping results support the aerial dispersal of the species and migratory origin of its occasional records from temperate regions.

At least 33 specimens² of Nabidae were collected during the course of the Bishop Museum transoceanic insect dispersal studies of 1952-1964 (Holzapfel & Harrell 1968). Through the kindness of Dr N. Kormilev and the late Dr J.L. Gressitt, I received from B.P. Bishop Museum for examination nearly all this material, totaling 31 specimens (2 of 4 specimens collected on 27.IV.1964 have not been seen). The majority of the specimens was collected in the tropical portions of the Atlantic Ocean.

It is not surprising that all *Nabis* specimens belong to only 1 species: *Nabis (Tropiconabis) capsiformis* Germar, 1838. It is a long-winged bug which flies well, and it is the most widespread species in the family Nabidae (more than 380 species). This species is very abundant in nearly all tropical and subtropical regions, including Africa and South America, and it inhabits many remote oceanic islands. Aerial trap catches support the aerial spreading of this species and the occasional migratory origin of the rare finds in temperate regions of Europe and Asia (Kerzhner 1977, 1981). The species inhabits all open places, including coastal biotopes and is a nonspecialized predator of various small arthropods. These aspects are important for successful colonization of new territories.

In the material examined, males and females are nearly equal in number. Most remote records are in the Atlantic Ocean³ 340 and 250 km from St. Paul Rocks (more than 500 km from South America) and in the Pacific Ocean 900 km from Midway Atoll and 1200 km from Wake Atoll. According to Dr J. Becker (pers. commun.), a nabid (I think it was *N. capsiformis*) was collected by him on St. Paul

1. Zoological Institute, Academy of Sciences of the USSR, Leningrad 199034, USSR.

2. One of the 2 specimens collected 9.02.1951 and cited in the published list of samples as Nabidae belongs to *Trigonotylus* sp. (Miridae).

3. Records of Nabidae in the Atlantic Ocean 900 km from land mentioned by Yoshimoto, Gressitt & Wolff (1962: 275) are certainly in error (see their Table 4).

TABLE I. Collections of *Nabis capsiformis*.

NO. AND SEX OF SPECIMENS	SAMPLE NO.	DATE	WIND		STARTING		ENDING		APPROX. DISTANCE FROM NEAREST LAND (km)
			DIR.	VELOC.	LAT.	LONG.	LAT.	LONG.	
Galathea Expedition 1950–1952 (see Yoshimoto et al. 1962)									
1950									
Atlantic Ocean									
1♀	10	15.XI	SE	2–4 kn	05°20'N	10°25'W	04°03'N	08°33'W	40, Liberia
1♂	16	17.XI	SSE	2	02°20'N	05°50'W	02°20'N	06°00'W	210, E Africa
1♀	32	21.XI		0	04°15'N	01°55'W	—	—	2, Takoradi
1♀	60	4.XII	SW	2	01°04'S	08°04'E	01°52'S	08°07'E	80, Equator Africa
1♀	62	4.XII	WNW	2	02°55'S	08°14'E	02°24'S	08°16'E	120, Equator Africa
1♀	79A	9.XII	SSW	2	06°46'S	11°28'E	06°51'S	11°15'E	120, Angola
1951									
Indian Ocean									
1♂	190	9.II	ESE WSW	2 4	30°50'S	31°17'E	29°52'S	31°10'E	10, off Durban
R.R.S. Shackleton, collected by H.B. Clagg (see Clagg 1966)									
1962									
Atlantic Ocean									
1♀	6	18.X	ENE	10–14	19°10'N	21°56'W	16°57'N	23°13'W	90 NNE Cape Verde Is
1♀	7	18.X	ESE	10–14	16°57'N	23°13'W	16°11'N	23°38'W	In Cape Verde Is, 60 km ESE, WNW or SW from nearest island
1♂, 1♀	9	19.X	Var. E'ly	10–14	15°10'N	23°38'W	13°00'N	25°01'W	190 SSW Cape Verde Is
1♂	13	22.X	SE	24–30	03°26'N	28°52'W	01°17'N	29°40'W	250 SW St. Paul Rocks
1♂	14		SE	24–30	01°17'N	29°40'W	00°30'N	29°59'W	340 SW St. Paul Rocks
1964									
7♂, 8♀	1	23.IV	W	18	33°39'S	52°30'W	32°40'S	51°39'W	90 E Brazil coast
1♂, 1♀	8	27.IV	E × S	14	21°46'S	40°37'W	18°59'S	39°11'W	45 E Brazil coast
U.S.S. Mann, collected by T. Harrell (see Holzapfel & Harrell 1968)									
1963									
Pacific Ocean									
1♀	—	2.V	?			20°22'N	177°48'E		1200 ENE Wake Atoll 900 SSW Midway Atoll

Rocks and other remote small islands along the Brazilian coast. *N. capsiformis* was recorded from Wake and Midway atolls by Gross (1963) and Zimmerman (1948), respectively.

All collections of *N. capsiformis* are shown in Table 1.

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