

to recall.

Witherslack, on 2nd September, was still producing *P. bractea* and a solitary *Pterostoma palpina* Clerck. (Pale Prominent) was taken.

On 14th September local m.v. attracted *Cirrhia gilvago* Schiff. (Dusky Lemon Sallow), *Eumichtis lichenea* Hubn. (Feathered Ranunculus) and on 16th September at Witherslack *Atethmia xerampelina* Esp. (Centre-barred Sallow) *Citria lutea* Stroem. (Pink-barred Sallow). *T. variata* and *Amathes castanea* Esp. (Neglected Rustic) came to light.

A local moss-land, just outside Blackpool was visited on 20th October and we were able to record some common moths for the Biological Records Centre.

Notably absent from this area this year have been *Vanessa atalanta* L. (Red Admiral) and *V. cardui* L. (Painted Lady). Other commitments have prevented further activities but, overall, we consider it to have been a year in which results have justified the (for us) rather large number of trips taken.

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Sex Ratio in the Population of *Micronecta scutellaris* (Stål) (Fam. Corixidae : Hemiptera)

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Micronecta scutellaris (Stål) is one of the commonest aquatic bugs inhabiting fish ponds. It is most abundantly found in the shallows on the littoral zone of ponds, resting on aquatic plants, stones or any other submerged objects. The present studies are based on the material collected at regular intervals, from February 1963 to January 1965, from a perennial fish pond at Barrackpore.

All collections were made with a wooden hand net of conventional design (30cm. diameter) using organdi cloth of fine mesh. The net was operated from six equally spaced stations around the pond. An effort was made to standardize the individual collection by visiting the specified station every time, collecting at arm's length and, after two sweeps, moving to the next station. For all standard net sweeps, mouth of the net was completely dipped into the water and speed was kept reasonably constant.

In determining the sex ratio, 6470 and 25,451 specimens were examined. Tables I and II show the monthly sex ratio between the males and females. A glance at the tables would reveal that in most of the months there is a preponderance of the females. The data, where the number of the individuals

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is more than 40, was subjected to statistical treatment by means of 'Chisquare Test', under the hypothesis that a 1:1 ratio exists between the males and the females. The chi-square values in most of the cases were highly significant against this ratio and indicated that the population did normally have more females than males in these months. Only in July 1964 were the males significantly more numerous than the females. However, Crisp (1962) did not find any marked difference from 1:1 ratio of males and females in *Corixa germari* (Fieb.).

TABLE I

Sex ratio of Micronecta scutellaris (Stål), 1963-64

Month	Number of specimens examined	Sex ratio		Chi-square	P
		Male	Female		
Feb. '63	44	1	: 3	11.0	0.001
March	336	1	: 2.4	58.33	<0.001
April	165	1	: 1.6	8.29	<0.01
May	4974	1	: 1.3	105.96	<0.001
June	95	1	: 1.2	0.54	>0.05
July	304	1	: 2.7	66.35	<0.001
*August	8	1	: 1	—	—
*Sept.	13	All females		—	—
*October	—	—		—	—
Nov.	116	1	: 2	13.79	<0.001
Dec.	228	1	: 1.1	0.35	>0.05
Jan. '64	127	1	: 1.1	0.20	>0.05

*Chi-square not applied due to inadequate data.

TABLE II

Sex ratio of Micronecta scutellaris (Stål), 1964-65

Month	Number of specimens examined	Sex ratio		Chi-square	P
		Male	Female		
Feb. '64	1597	1	: 1.4	43.97	<0.001
March	1248	1	: 1.5	58.41	<0.001
April	106	1	: 1.5	3.77	0.05
May	1778	1	: 3.3	50.76	<0.001
June	1410	1	: 1.6	69.93	<0.001
**July	4520	1	: 0.8	42.06	<0.001
August	12458	1	: 1.1	10.99	<0.01
Sept.	246	1	: 2.2	32.06	<0.001
Oct.	278	1	: 2	31.78	<0.001
Nov.	286	1	: 2.4	47.05	<0.001
Dec.	1258	1	: 1.7	95.16	<0.001
Jan. '65	248	1	: 1.1	0.26	>0.317

**Males significantly more numerous than females.

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References

- CRISP, D. T., 1962. Observations on the biology of *Corixa germari* (Fieb.) in an upland reservoir. *Arch. Hydrobiol.*, **58**: 261-280.



Julka, J.M. 1973. "Sex ratio in the population of *Micronecta scutellaris* (Stal) (Fam. Corixidae: Hemiptera)." *The entomologist's record and journal of variation* 85, 125–126.

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