

BRAUERIA 21

TRICHOPTERA
NEWSLETTERSTONE DOLLS MADE FROM CASES OF GOERA LARVAE IN JAPAN

IN THE LATER HALF OF THE EDO PERIOD (ABOUT 1700), MANY LEGENDS WERE BASED ON THE DOLL-LIKE CASES OF THE GENUS GOERA IN IWAKUNI DISTRICT, CENTRAL JAPAN. ONE OF THE TYPICAL STORIES WAS:

A LONG, LONG TIME AGO, A BRIDGE WAS SOMETIMES DESTROYED BY THE FLOODING OF THE NISHIKI RIVER. ONCE UPON A TIME, WHEN THE BRIDGE WAS NEWLY BUILT, A BEAUTIFUL YOUNG GIRL WAS OFFERED AS A SACRIFICE TO PROTECT THE BRIDGE FROM BIG FLOODS. AFTER THAT TIME, THE NEW BRIDGE WAS NOT DESTROYED FOR A LONG TIME. THE STONE DOLL IS A REBIRTH OF THE GIRL.

DURING 300 YEARS, PEOPLE IN IWAKUNI DISTRICT HAVE FAVOURED THE STONE DOLLS AS AMULETS TO PROTECT THEMSELVES FROM ACCIDENTS, DISASTERS AND EVILS. AT THE PRESENT TIME, THE DOLLS ARE ONE OF THREE ETHNIC TOYS MADE FROM NATURAL OBJECTS IN JAPAN.

HABITAT DISTRIBUTION OF CADDIS LARVAE IN THE NORTHEASTERN POLISH LAKES

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Caddis larvae were collected intensively at monthly intervals in four lakes in the vicinity of Olsztyn during the years 1987-1990 and occasionally from ten northeastern Polish lakes in the years 1954-1966 (unpublished data of Szczepańska) and in the years 1987-1992 (Fig.1).



Figure 1. The study area, A..lakes intensively investigated in the vicinity of Olsztyn, B..occasionally investigated, C..lakes from the Pomeranian Lakeland and D..Eastern Poland.

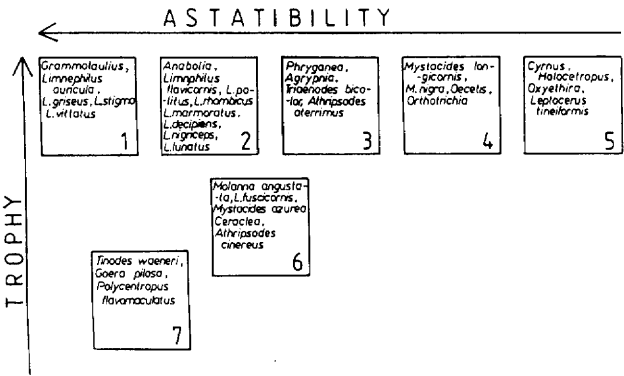
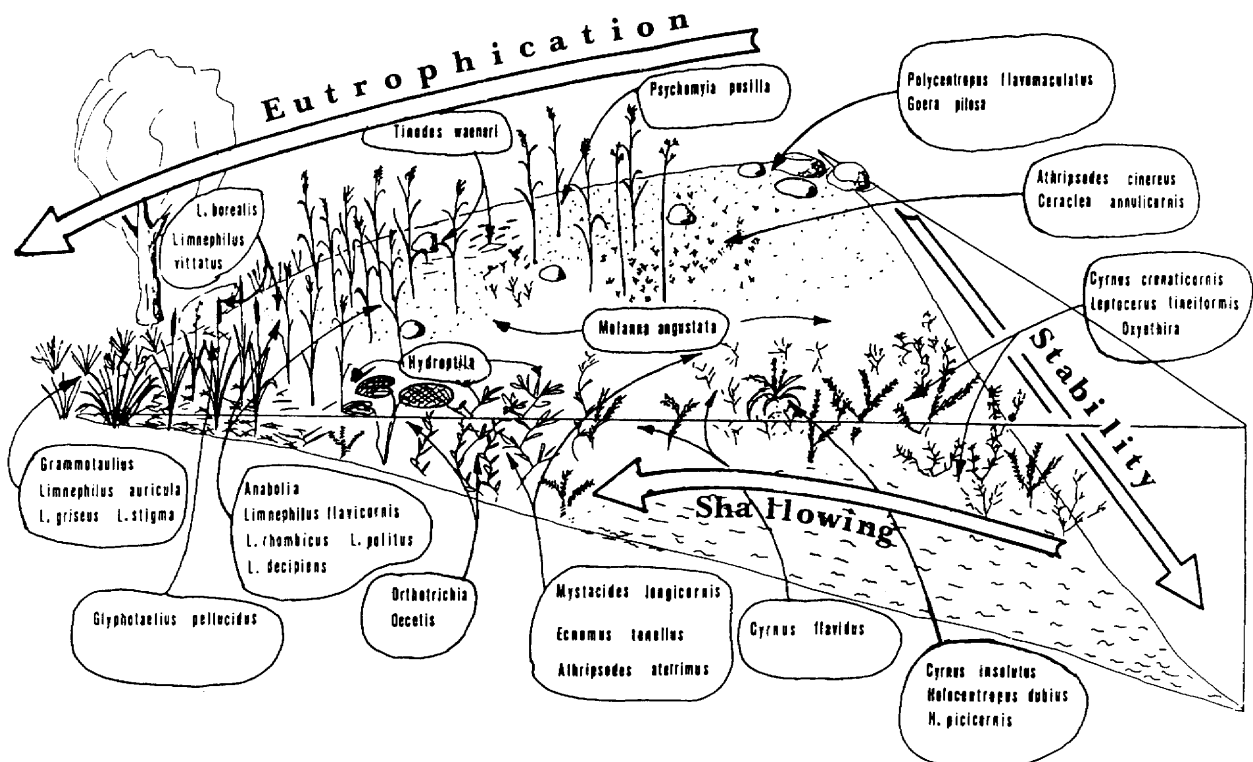


Figure 3. A model of distribution of caddis larvae assemblages along the stability (astability) and trophic gradients (from Czachorowski in prep.C)

Based on the vertical distribution (Czachorowski 1989, 1993, 1993a), co-occurrence (Czachorowski 1992; in prep.B), and habitat distribution of larvae (Czachorowski 1992, in prep.C), I propose a model of distribution of caddis larvae in the Masurian lakes (Fig. 2). The model takes the trophic and stability patterns (Fig. 3) of the lake habitats (and their changes in time or in space) into account. This model is applicable only to Northern Polish lakes (Czachorowski in prep.A). Woodland lakes in this area have similar but not identical patterns of the caddis habitat distribution. In the helophyte zone of the woodland lakes (e.g. the lobelian lakes) we have typically *Limnephilus borealis*, *L.stigma*, *L.fuscineris*, *L.binotatus*, *L.nigriceps*, *L.politus*, *Trichostegia minor*, *Glyphotaelius pellucidus*, *Mystacides azurea*, *Oecetis testacea*, *Trienodes conspersus* and *Ecnomus tenellus*. Also many Phryganeidae occur in the elodeid and the isoetid zone (Czachorowski in press) of these lakes.

Figure 2. A model of habitat distribution in the Masurian lakes.



In the helophyte zone of the Eastern Polish lakes Limnephilidae do not normally occur or are very scarce (only two species: Czachorowski & Kornijów 1993, in prep.). Thus there are geographical (regional) patterns of the habitat distribution of caddis larvae in these lakes, and the lake's surroundings have an influence on the caddis habitat distribution.

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