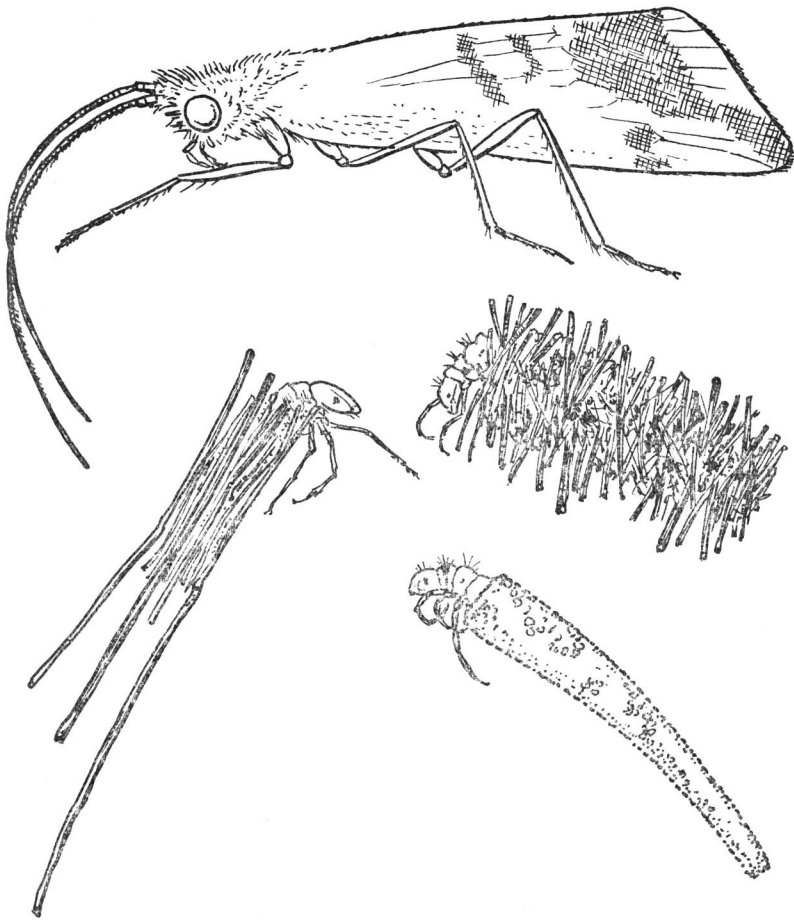


CADDIS FLIES

G. D. HEATHCOTE

CADDIS flies are not familiar to most people, but many naturalists at least know the aquatic larvae that occur in ponds and streams, where they live in tubular cases made from pieces of water weed, tiny stones, empty shells, and other debris. The adult fly is moth-like, small to moderate-sized, with rather dull brownish, membranous wings, which are held over the back to form a roof when the insect is at rest. The wings are "hairy", not covered with scales like a moth.



CADDIS—adult fly and larvae with cases constructed of water plants or sand.

As moths, caddis flies pass through the egg-larva-pupa-adult stages of development, all of which are important items in the diet of trout and other fish. Although trout fishermen seldom use live caddis flies, "dry" and "wet-fly" fishermen use simulated caddis pupae or adults as bait. Many trout "flies" are accurate models of caddis flies (given charming names like "Red Sedge", "Grouse Wing", and "Welshman's Button") but others are entirely imaginary flies. Caddis flies do little harm, but the larvae of one very common and widespread species (*Limnephilus lunatus*) have been reported as a pest of watercress grown commercially.

The distribution and seasonal abundance of caddis flies is being surveyed by Dr. M. I. Crichton of the University of Reading, using the catches in Rothamsted light traps (Williams, 1948), which are operated primarily to study the migration of moths. Traps are operated by private individuals, the Forestry Commission, the N.A.A.S., the Nature Conservancy, Universities, and other organisations. The results of this trapping are co-ordinated by the Entomology Department of Rothamsted Experimental Station. Details of catches are put on computer tape for analysis, and records of the occurrence of species are sent to the Biological Records Centre at Monks Wood, which is operated by the Nature Conservancy. One such light trap is at Broom's Barn Experimental Station, Higham, near Bury St. Edmunds. During 1968 this trap caught five of the 193 British species of caddis flies, belonging to two of the thirteen families into which the Trichoptera are divided. An additional six species were caught during 1969, with members of two other families (see Table).

CADDIS FLIES CAUGHT IN A ROTHAMSTED LIGHT TRAP AT BROOM'S BARN DURING 1968 AND 1969*

	1968	1969
POLYCENTROPIDAE		
<i>Polycentropus flavomaculatus</i> (Pict.)	0	7
HYDROPSYCHIDAE		
<i>Hydropsyche angustipennis</i> (Curt.)	0	1
LIMNEPHILIDAE		
<i>Limnephilus flavicornis</i> (F.)	1	1
<i>L. lunatus</i> Curt.	1	4
<i>L. ignavus</i> McL.	0	1
<i>L. affinis</i> Curt.	1	1
<i>Halesus radiatus</i> (Curt.)	0	1
<i>Allogamus auricollis</i> (Pict.)	0	1
<i>Stenophylax lateralis</i> (Stephens)	1	0
LEPTOCERIDAE		
<i>Leptocerus tineiformis</i> Curt.	0	1
<i>Oecetis lacustris</i> (Pictet)	2	0
	<hr/>	<hr/>
	6	18
	<hr/>	<hr/>
Species	5	9

*det. M. I. Crichton.

Caddis flies occasionally are on the wing as early as April, throughout the summer, and a few stragglers well into December. Few were caught at Broom's Barn at any time, but warm, wet autumn nights can give large catches in light traps. There is a deep pond on Broom's Barn farm, and several ponds lie between Broom's Barn and the neighbouring village of Barrow, but some of the caddis flies caught may have come from further afield; some disperse widely, and they may live for weeks or even months.

Most of the caddis flies trapped at Broom's Barn are common and widely distributed, but only one other specimen of *Leptocerus tineiformis* has been caught in the survey, although it can occur in large numbers near suitable water. It is obviously a species that does not disperse far. Both *Limnephilus ignavus* and *Allogamus auricollis* were mostly caught in wilder country in Scotland and Wales, but clearly they are found elsewhere.

In addition to the caddis flies caught in the light trap, *Limnephilus affinis* were caught in a suction trap and on a sticky trap, and *Tinodes waeneri* (L.) (Psychomyiidae) was caught in a suction trap at Broom's Barn.

The distribution and local abundance of few insects has been adequately recorded, and the caddis flies of Suffolk are no exception, but they make a satisfying study for the amateur naturalist and are particularly suitable for study by biology classes in rural schools.

N. E. Hickin's book "Caddis", published under the auspices of the Council for the Promotion of Field Studies, can be recommended to all naturalists. T. T. Macan is preparing a key to adult caddis flies which will take the place of Mosely's (1939) "The British Caddis Flies", now scarce and out-of-date. Hickin's recent monograph on the larvae at £10 10s. 0d. is priced out of most people's reach.

Reference

Williams, C. B. (1948). *Proc. R. Ent. Soc. Lond. (A)*, 23, 80-5.

Dr. G. D. Heathcote, F.R.E.S., *Broom's Barn Experimental Station, Higham, Bury St. Edmunds, Suffolk.*
