

# A Simple Device for Collecting Insects

MANOCHEHR AZRANG

Department of Plant Pathology and Entomology, Agricultural College of Sweden,  
S-750 07 Uppsala, Sweden

## Abstract

AZRANG, M. A simple device for collecting insects. — *Ent. Tidskr.* 97: 92—94, 1976.

It is sometimes necessary to collect insects during their diapause, when they are stationary or more or less immobile. For this purpose a simple self-powered suction sampling apparatus

was constructed. This apparatus is very simple to build, conveniently light, portable and easily operated under almost all conditions. It weighs about 3 kg totally and the cost does not exceed that of a good sweeping-net.

Insects are normally collected during their active and mobile periods but sometimes it is necessary to collect them during diapause or when they are more or less immobile due

to climatic conditions, parasitism or for other reasons.

Different types of suction apparatus are often used for this purpose. The generally ac-

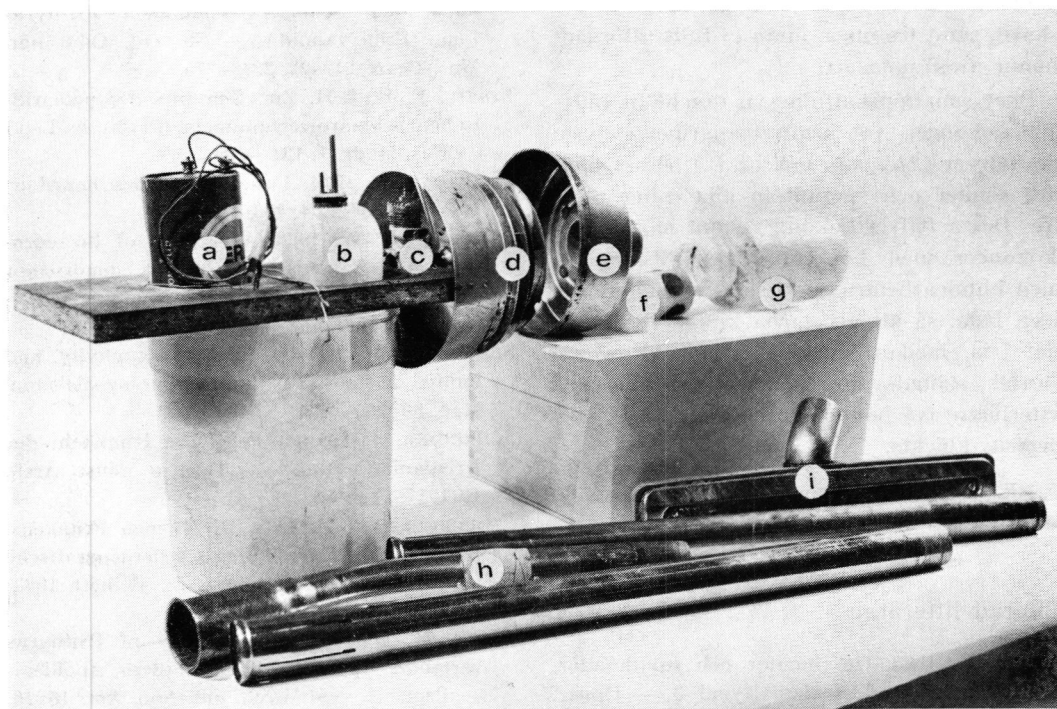


Fig. 1. Components of suction sampling apparatus. (a) battery, (b) fuel tank, (c) engine, (d) fan element, (e) fan casing, (f) filter, (g) container, (h—i) pipe element.

cepted model is carried on the collectors back and is driven by an engine. It weighs about 12 kg totally and is commercially available at a price of approximately 1,500 Sw. cr.

During studies of hibernating nymphs of *Laodelphax striatella* (Fallén) (Hom. Auchenorrhyncha Delphacidae), a need arose for collecting these insects and a simple suction apparatus was constructed based on a model aeroplane engine, type Webra sport-Glo Universeller Glühkerzen-Motor 1.7 ccm (0.10 cu. in.), coupled to an old vacuum cleaner fan element, equipped with a filter, a container and a pipe, as demonstrated in Figs. 1 and 2. This apparatus is very simple to build, conveniently light, portable, and easily operated under almost all conditions. The total weight

Table I. Sample of insects caught by the use of the apparatus. For further explanation see text.

Insect group	Number of specimens per 30 min
Collembola .....	71
Hemiptera .....	—
Heteroptera, imagines .....	7
Homoptera .....	—
Aphidoidea .....	16
Fulgoroidea .....	—
Delphacidae, nymphs .....	122
Cicadoidea, imagines .....	7
nymphs .....	3
Thysanoptera .....	7
Lepidoptera, larvae .....	3
Diptera, imagines .....	327
larvae .....	12
Hymenoptera, imagines .....	15
larvae .....	2

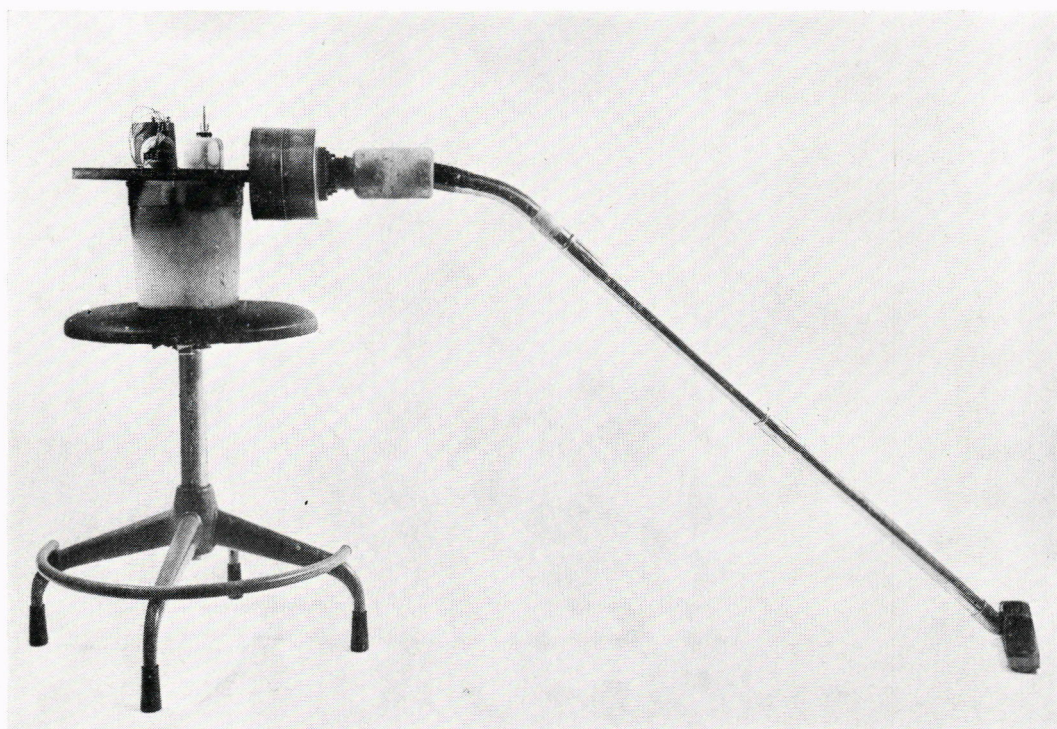


Fig. 2. Suction sampling apparatus complete.

is about 3 kg and the cost does not exceed that of a good sweeping-net.

The driving mechanism is easily started by conventional means, i.e. a string, but I prefer to use a rotating cycle wheel.

The noise from this apparatus is rather high but if desired a silencer is available for attachment to the engine.

This home-built apparatus has proved to

be extremely suitable for collecting stationary or immobile insects during hibernation. It has been successfully used for collecting delphacid nymphs on vegetation, at ground level, or in surface cavities. The insects collected in a sample taken from 500 m<sup>2</sup> in an oat field during late autumn after the harvest are listed in Table I.