

**ASPIRATOR FOR COLLECTING OF
SMALL ZYGOPTERANS CLOSE ABOVE
WATER SURFACE AND AMONG
DENSE VEGETATION**

Various small zygopterans, such as e.g. many *Cercion* species, that hardly ever fly more than an inch above the water surface, are extremely difficult to net in the air. In southern and southeastern Asia we have often caught them by covering them with the net over the water surface, and then pulling it through the water. Though this technique is fairly efficient, it has the disadvantage that it is applicable only in fairly deep water with little or no surface vegetation; the frame of the net has to be rather strong, and the specimens collected in this way, as well as the net, are wet. Hence, in order to keep the triangles (envelopes) dry, a second person is required to envelope them with dry hands.

During our 1980 collecting trip in Taiwan, where we have been guests of our friend, the well-known Taiwanese odonatologist Dr J.C. LIEN (Medical Entomology Section, Taiwan Provincial Institute of Infectious Diseases, 161 Kun-yang Str., Nankang, Taipei, Taiwan), we have learned from him to collect by means of an aspirator. The aspirator method, developed and used by Dr Lien, is very simple and extremely efficient. Such species as e.g. *Cercion calamorum*, etc. that fly close to the water surface among thick aquatic vegetation (e.g. water lilies) can hardly be collected by netting, while long series can easily be acquired by aspirator within the shortest thinkable time.

On Figure 1 Dr Lien is shown in the Taipei Botanical Gardens collecting *Cercion calamorum dyeri* (Fraser). He is using a simple rubber tube of less than 1 cm diameter. The perched dragonfly can be easily approached with the tip of the tube, and simply sucked in. By gently blowing in the tube, it is blown out again, and can be triangled. The tube of about 2 m length can be fixed on the handle of the net to reach farther off the bank. A further improvement of the apparatus would be the inclusion of a plexi-glass (6 x 3 cm approx.) chamber some 10-15 cm off the opening of the tube, which would enable one to collect several specimens in the chamber, without having to triangle each one separately. If the chamber is used, the insects cannot be "blown out" of it. The latter has first to be disconnected from the tube. By covering it with one's hand, leaving



Fig. 1. Dr J.C. Lien, Taipei, catching dragonflies by means of the aspirator. (Photo: M. Kiauta; Aug. 16, 1980).

free only one opening, the dragonflies will creep towards the light, coming out of it one after the other, enabling the collector to triangle them at leisure.

We have never before heard about this method, and were greatly amazed at its efficiency, especially after all the difficulties we have often had with the "classical" netting of various species dwelling in such habitats. It is for this reason that we consider it worth while bringing Dr Lien's method under the attention of the fellow odonatologists.

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