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5.6 INVERTEBTATES OF THE BANKS OF THE RIVER – THE „RIPRAP“

(by K. Tockner)

5.6.1 Introduction

The biotope „Riprap“ is a complex system of large boulders with an extended interstitial space (Fig. 3.1; Tockner, 1986).
The characteristics of this biotope are the stability of the substratum, the permanent exposure to wave action, the heavy algal development on the upper surface of the boulders and the complex and widespread interstitial spaces.
Because of the complexitiy of this biotope, quantitative sampling has some limitations.
Two kinds of method have been chosen. For an investigation of the epilithic community, individual stones, cut to a defined surface area, were exposed for colonization (Doeg, 1985). For sampling the interstitial fauna, a greatly modified and adapted slurp-gun has been constructed (Herrig, 1975).

5.6.2 Equipment

5.6.2.1 Colonization substrata

Individual stones, similar to the natural granite substratum, are cut to a defined size of 25 x 15 x 4 cm, exposed at two depths and fixed with a rope. Exposure time varies between three days and several months. Before they are removed, a net (mesh-size: 0.1 mm) is put over the stone by hand. Subsequently the „Aufwuchs“ will be brushed off carefully. Volume and dry-weight of algae and trapped fine material are estimated. Problems of the so-called „colonization substrata“ are reviewed by Khalaf & Tachet (1977).

5.6.2.2 Slurp-gun (Fig. 5.6.1 and Plate 5.6.1)

The slurp-gun has a sampling volume of 3600 ml, the time for suction varies between one and three seconds (depending on the water depth).
The slurp-gun can also be used for qualitative sampling of the epilithic fauna by sucking material from the stone surface.

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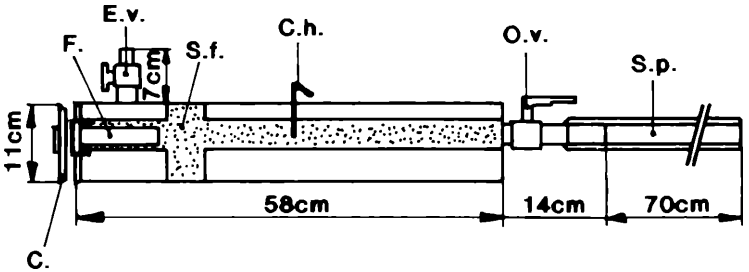

Fig. 5.6.1. General arrangement of the slurp-gun. Scale: 1:1.5 (inmm). C. = cover; F. = fastening; E.v. = evacuation valve; S.f. =steel frame; C.h. = carry hold; O.v. = opening valve; S.p. = sucking pipe.

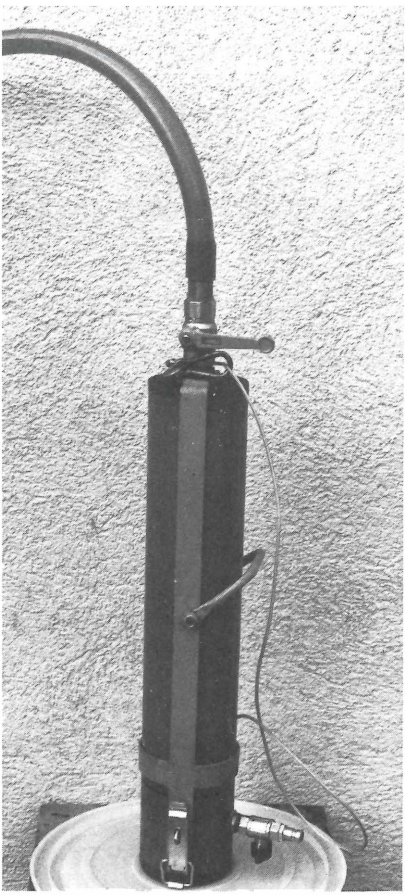

Plate 5.6.1. The slurp-gun in use.

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