

A SIMPLE AND EFFECTIVE METHOD OF RELAXING THE
INSECTS CONSERVED BY FORMOL

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The water solution of formaldehyd is for many reasons the most frequently used conservation medium in the pitfall (Barber's) traps. The mounting of insects conserved by formol has been, however, very hard. The boiling of such insect material in 20 % solution of the citric acid solves this problem by a satisfactory mode.

Key words: mounting technics of insects, relaxing of insects, conserved by formol.

The pitfall trapping has becamed one of the most effective methods of sampling the soil and/or soil surface arthropods. Since the early fifties, many conservation media have been used in pitfall traps their effect on the catch quality and structure was studied (e. g. Thiele, 1977; Czechowski, 1980; Petruška et al., 1982; Santos et al., 1982; Scheller, 1984). In spite to many contradicting results and experiences, the immense number of papers shows that the most frequently used conservation solution is, and a good time probably will be, formol. It is due to its excelent conservation properties and low price. Besides the formol kills quickly the insects dropped into the traps, so the sampling is usually more effective than when ofther media, e. g. ethylenglycol, vinegar, vine, pure water etc. are used (Scheller, 1984; Thiele, 1977; Šustek, 1984), because the caught insects can not leave the traps.

The use of formol has, however, a great and very unpleasent desavantage if some specimens should be mounted by the traditional way for collection. The formol conserved material can be mounted only extremly hardly so to the mounting assure the protection of the specimens during later manipulation and, in the same time, to satisfy the scientific and esthetical requirements which especially in Europe are usually strongly accented (Novák et al., 1969).

After more experiments with many compounds I have found that statifying results of relaxing the insects conserved in formol can be obtained by the help of boiling the insects in the ca 20 % water solution of citric acid. The time of boiling depends on the hardness and size of the relaxed specimens. The experiences obtained until now show that the big beetles (about 20—30 mm) should be boiled approximately 2—3 hours, the medium size beetles (about 10—20 mm) 1—2 hours and the small specimens about 1 hour. The above values

are, of course, very approximative and the boiling time should be determined individually. It is desirable to sort the relaxed specimens according their size when a larger number should be relaxed. During a long boiling the water should be added more times or the maceration solution can be changed at all. It is recomandable to warm the recipient with the boiled specimens in water bath to protect it from direct fire. After the boiling the insects should be washed more times in clear warm water. The insufficient washing results in a sticky cover of rests of citric acid on the body surface. There was observed no negative effect of citric acid and boiling on the microsculpture, structural and pigmental colour of the treated specimens. Good results with the above method were obtained even with the beetles conserved in 8—10 % formol.

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JEDNODUCHÁ A ÚČINNÁ METÓDA ZVLÁČŇOVANIA HMYZU KONZERVOVANÉHO FORMALÍNOM

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Vodný roztok formaldehydu sa z viacerých dôvodov používa ako najčastejšie konzervačné médium v zemných pasciach. Preparácia takto konzervovaného hmyzu na zbierkové účely je však veľmi ťažká a neposkytuje uspokojujúce výsledky. Tento problém rieši varenie exemplárov konzervovaných formalínom v asi 20-percentnom roztoku kyseliny citrónovej.

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ПРОСТОЙ И ЭФФЕКТИВНЫЙ МЕТОД СМЯГЧЕНИЯ НАСЕКОМЫХ КОНСЕРВИРОВАННЫХ ФОРМАЛИНОМ

Збышек Шустек

Водный раствор формальдегида по многим причинам применяется в качестве самой частой консервационной среды в земных ловушках. Приготовление насекомых консервированных приведенным способом для целей создания коллекций, представляет собой очень сложный процесс и не дает удовлетворительных результатов. Эту проблему решает кипячение экземпляров консервированных формалином в приблизительно 20 процентном растворе лимонной кислоты.