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저농도의 다이아지논에 대한 물벼룩(Daphnia cf. similis)의 유영행동 변화

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Behavioral changes of Daphnia (Daphnia cf. similis) treated with anticholinesterase insecticide, diazinon were continuously observed semi-natural conditions. Specimens of Daphnia were individually placed in observation cages, and the movement tracks in two dimensions were continuously observed by using image processing systems for about 1 day. Although variations occurred in individual specimens, the movement tracks appeared differently after the treatment. Four movement patterns frequently observed before and after the treatment were selected, and the variables characterising the movement patterns were compared quantitatively. The variables were clearly differentiated when the movement patterns were correspondingly matched before and after the treatments. Quantitative investigations on the variables of the movement tracks suggested the usefulness of response behavior as a monitoring tool for environmental assessment.