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Bibliography of Toxicity Test Methods for the Aquatic Environment

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M.P. McLean
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BIBLIOGRAPHY OF TOXICITY TEST METHODS FOR THE AQUATIC ENVIRONMENT

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PREFACE

A number of national and international efforts are underway to subject new and existing man-made substances to sufficiently protective ecotoxicity testing procedures. However, ecotoxicology is a young science, just recently advancing from description and documentation of toxicant-caused environmental impairments, towards their prediction, the basis for prevention. Accordingly, proposals still differ widely in regard to the kind and number of tests that should and could be applied.

To help clarify which tests are and are not presently available is the objective of this bibliography, which originated from literature searches conducted while preparing a 1979 toxicity test publication by Freshwater Institute authors (Can. Spec. Publ. Fish. Aquat. Sci. 44). Some 762 references are listed, out of about 20,000 checked. We utilized CANOLE computer searches of BIOSIS, FWI library holdings, and reprint collections of FWI researchers. All references were grouped under 3 broad categories: 1) lethal, 2) sublethal, 3) test compilations and reviews. Under 1) and 2), papers meeting at least one of the following criteria were included:

a) those presenting or containing first descriptions of methods either originally or later (as holds true for many sublethal techniques) used for testing toxicity to aquatic organisms;

b) those containing major method modifications (not all have yet been applied to toxicity testing); and

c) those giving recent examples of applications of these methods.

The limited methodological scope and significance of lethality tests is reflected in the limited number of citations under this heading. Sublethal methods from various levels of biological organization (under 7 subheadings) constitute the largest portion by far. "Test compilations and reviews" may give some guidance beyond specific tests towards establishing comprehensive multi-test procedures.

We hope this bibliography will facilitate access to existing test methods; may it also point out the many gaps to be filled by future research.

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Richard E. McNicol
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ABSTRACT

The 762 references listed comprise methods for detecting lethal and (mainly) sublethal toxic effects on aquatic organisms and communities, examples of application, as well as multi-test compilations and reviews. The objective is to provide easy access to current methods, and to illustrate gaps in the present state of toxicity testing.

key words: bibliography, aquatic pollution, toxicology, test methods, lethal, sublethal

RÉSUMÉ

Les 762 références cataloguées comprennent des méthodes de détection des effets toxiques létaux et (surtout) sous-létaux sur les organismes aquatiques et les communautés, des exemples d'application, ainsi que des compilations d'essais multiples et des révisions. Le but de cet ouvrage est de faciliter l'accès aux méthodes d'usage courant et d'illustrer les lacunes qui existent présentement dans les essais de toxicité.

mots-clés: bibliographie, pollution aquatique, toxicologie, méthodes d'essais, létal, sous-létal

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