

FAUNA AQUATICA AUSTRIACA

SENSITIVE TAXA

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The sensitive taxa list is a macroinvertebrate species inventory, which has been elaborated by expert group's consulting. The expert group consists mainly of authors of the Fauna Aquatica Austriaca. The major goal of this inventory is to provide a tool to assess the ecological status of waterbodies and may serve as a valuable metric for single- and multimetric biological river assessment approaches.

The sensitive taxa can be determined in the field and are a part of the list of "screening taxa". The first issue of this list was in the "Guidance to the assessment of the saprobiological water quality of rivers and streams in Austria" ("Richtlinie Saprobiologie") published by the Ministry of Agriculture, Forestry, Environment and Water Management (Moog et al. 1999). Later, the list was included as part of the Fauna Aquatica Austria in 2004 (Moog et al. 2004). The experts considered those taxa as sensitive 1) that have a narrow range of environmental needs (e.g. stenotopic, stenoeceous) and 2) that react intolerantly against environmental perturbation. The inventory contains taxa of broad kind of sensitivity against physical, chemical and hydro-morphological degradation.

The incorporation of the EU Water Framework Directive in the Austrian Water Law has involved the need to develop new methods for assessing the ecological state of watercourses. One of these new methods is the Screening Method, an early warning tool that permits ready and low-cost assessment of the ecological state of a river system (Ofenböck et al. 2010; Hartmann 2011, Hartmann & Moog 2012). The screening founds on a list of 287 macrozoobenthic taxa that can be accurately determined in the field. The screening method bases on four metrics (number of screening taxa, number of sensitive taxa, degradation score, saprobe score) which can identify hydrological and morphological as well as general and physicochemical deficiencies in water bodies. The sensitive taxa approach is not only one a measure out of the four screening metrics it became also a valuable metric in various procedures of the integrated assessment of running waters (e. g. Hering et al. 2004, Konrad et al. 2008).

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Sensitive Taxa

Theodoxus sp.

Viviparus sp.

Hydrobiidae Gen. sp. excl.

Potamopyrgus sp. & *Lithoglyphus* sp.

Bythinella sp.

Lithoglyphus naticoides

Margaritifera margaritifera

Unio crassus ssp.

Unio tumidus ssp.

Branchiobdellidae Gen. sp.

Anostraca, Conchostraca, Notostraca
Gen. sp.

Niphargus sp. (excl. *N. hrabei*)

Proasellus cavaticus

Astacus astacus

Astacus leptodactylus

Austropotamobius torrentium/pallipes

Argyroneta aquatica

Siphonuridae Gen. sp.

Ametropus fragilis

Baetis muticus

Oligoneuriella rhenana

Heptageniidae Gen. sp.

Epeorus sp.

Epeorus alpicola

Epeorus assimilis

Rhithrogena sp.

Ecdyonurus sp.

Electrogena/Heptagenia sp.

Heptagenia coerulans

Leptophlebiidae Gen. sp.

Leptophlebia sp.

Habroleptoides/Paraleptophlebia sp.

Habrophlebia sp.

Potamanthus luteus

Ephoron virgo

Ephemera sp. excl. *E. danica*

Ephemera danica

Ephemerella sp.

Ephemerella major

Sensitive Taxa

Brachycercus harrisellus
Calopteryx splendens
Calopteryx virgo
Gomphidae Gen. sp. *Cordulegaster*
sp.
Perlodidae Gen. sp.
Dictyogenus/Perlodes sp. *Isoperla*
sp.
Perlidae Gen. sp.
Perla sp.
Chloroperlidae Gen. sp.
Isoptena serricornis
Taeniopterygidae Gen. sp.
Brachyptera/Rhabdiopteryx sp.
Taeniopteryx sp.
Taeniopteryx auberti/hubaulti
Taeniopteryx
kuehtreiberi/schoenemundi
Taeniopteryx nebulosa
Amphinemura sp.
Protonemura sp.
Leuctra geniculata *Aphelocheirus*
aestivalis Neuroptera/*Osmylus*
fulvicephalus Neuroptera/*Sisyra* sp.
Oreodytes sp.
Elmidae Gen. sp.
Elmis sp.
Esolus/Oulimnius/Riolus sp.
Limnius sp.
Macronychus quadrituberculatus
Hydraena sp.
Spercheus emarginatus
Eubria palustris
Rhyacophila albardana/torrentium
Rhyacophila (Hyporhyacophila)
sp. *Rhyacophila bonaparti/meyeri*
Rhyacophila intermedia

Sensitive Taxa*Rhyacophila laevis**Rhyacophila producta*

Glossosomatidae Gen. sp.

*Ptilocolepus granulatus**Synagapetus* sp.

Philopotamidae Gen. sp.

Philopotamus sp.*Wormaldia* sp.*Neureclipsis bimaculata**Plectrocnemia* sp.*Lype* sp.*Brachycentrus montanus**Micrasema longulum**Micrasema minimum**Micrasema morosum**Apatania* sp.*Drusus chrysotus**Drusus discolor*

Goeridae Gen. sp.

Crunoecia sp.*Lepidostoma basale**Ceraclea nigronevosa*

Beraeidae Gen. sp.

Odontocerum albicorne

Blephariceridae Gen. sp.

*Blepharicera fasciata**Hapalothrix lugubris**Liponeura* sp.

Dixidae Gen. sp.

Empididae Gen. sp.

Psychodidae Gen. sp. „black type“

Bazarella/Berdeniella sp.

Thaumaleidae Gen. sp.