

Special Issue on
Antipredator and Stress Responses in Aquatic Organisms

CALL FOR PAPERS

Recently, it has been shown that physiological stress responses in prey animals under risk of predation are fundamental mechanisms that govern trophic levels and ecosystem function. Prey animals can recognize their predators based on many sensory cues, and stress responses can take place to support defensive responses. Although it is very intuitive, contrasting results have been reported, such as absence of response and spurious or strong antipredator responses to chemical cues emanating from predators, including glucocorticoid surge. Defensive responses and neuroendocrine mechanisms of these responses have been explored in mammals, in particular in rodents. There is ample literature describing behavioral responses to predation risk in aquatic animals such as fish and crustaceans, but little is known about neuroendocrine responses linked to those defensive behaviors. Thus, addressing this issue might contribute to elucidating how neuroendocrine physiology of prey animals was shaped during the course of evolution in ancient taxa.

In this special issue, we encourage authors to submit original research and review articles on stress and defensive responses to predation risk in aquatic organisms, predominantly focusing on sensory cues (chemical, visual, mechanical, etc.) that could be associated with them. Research articles that elucidate how glucocorticoid as well as other neuroendocrine systems modulate behavior of aquatic prey animals are also welcome. Finally, submissions on anthropic interference in the aquatic environment that could affect the neuroendocrine status and defensive responses are encouraged (endocrine disrupting chemicals, agrichemicals, etc.).

Potential topics include but are not limited to the following:

- ▶ Direct effects of predator cues on stress and behavior in aquatic organisms
- ▶ Effects of conspecific and/or heterospecific prey aquatic sensory cues (chemical, visual, mechanical, etc.) of predation risk on stress and behavior
- ▶ Modulation of neuroendocrine stress mediators on prey behavior of aquatic organisms
- ▶ Effects of endocrine disruptors on prey stress and behavior in aquatic organisms
- ▶ Anthropogenic stressors effect of aquatic organisms on prey stress and behavior under risk of predation
- ▶ Influence of prey neuroendocrine status on trophic chains (top-down and bottom-up processes)

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/scientifica/zoology/asro/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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