

Neophilia in guppies, *Poecilia reticulata* Peters, 1859

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Neophilia refers to the tendency of individuals to display a preference for novelty or new experiences. In the context of guppies (*Poecilia reticulata*) (Figure 1), neophilia has been observed in various aspects of their behavior (Lucon-Xiccato et al 2019; Daniel et al 2020).

Novel object exploration. Guppies, like many other animals, exhibit a curiosity towards novel objects in their environment. Studies have shown that guppies tend to explore and interact more with novel objects introduced into their surroundings (Lucon-Xiccato & Dadda 2016). This behavior is often attributed to a natural inclination for exploration and a response to changes in their environment.



Figure 1. *Poecilia reticulata* Peters 1859 (photo: Mircea Roșca).

Behavioral responses to novelty. Neophilia in guppies can manifest as altered behavioral responses when exposed to new or unfamiliar situations. Guppies may display

increased activity, exploration, and curiosity in the presence of novel stimuli (Lucon-Xiccato & Dadda 2016).

Impact on learning and adaptation. Neophilia can play a role in the learning and adaptation processes of guppies. The willingness to explore novel environments or objects may facilitate the acquisition of new information and experiences, contributing to the guppy's ability to adapt to changing conditions (Petrescu-Mag 2007).

Social neophilia. Guppies also exhibit neophilic tendencies in social contexts (Petrescu-Mag & Balint 2019). They may display interest in new social partners, whether they are introduced to novel conspecifics (members of the same species) or different species (Petrescu-Mag 2018).

Reproductive implications. Neophilia may have implications for reproductive behavior in guppies (Hain et al 2017). Females, for example, may show a preference for novel mates during mate choice, which can contribute to genetic diversity within the population (Croft et al 2012; Daniel & Williamson 2020; Daniel & Rodd 2021).

Ecological significance. Neophilia in guppies can have ecological implications, as it may influence their responses to environmental changes and their ability to exploit new resources. Neophilia is a common behavioral trait observed in various animal species (Cowan 1977), and its expression in guppies can vary based on factors such as individual differences, environmental conditions, and the specific context in which it is observed.

Conclusions. Studying neophilia in guppies contributes to a broader understanding of their behavioral ecology and how they interact with their environment.

Conflict of interest. The author declares no conflict of interest.

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