

# Sex Based Differences in the Trophic Niche of *Pelophylax ridibundus* (Pallas, 1771) (Amphibia: Anura) from Bulgaria

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**Abstract:** During our study we identified 182 prey items in the trophic spectrum of *Pelophylax ridibundus* (110 in males and 72 in females) with average number of prey items per stomach as follows: ♂ – 2.05 (SD=2.18); ♀ – 2.00 (SD=2.00). For both sexes the most important prey category is Hymenoptera (♂ – 20.91% and ♀ – 31.95%), followed by Coleoptera (♂ – 19.09% and ♀ – 22.23%) and Diptera (♂ – 17.29% and ♀ – 15.28%). A presence of vertebrates (fish and amphibians) in the trophic spectrum was also recorded for both sexes. The fish (*Carassius gibelio*) is taking 1.82% from the diet of the males and 2.78 % from the diet of the females. The amphibians are presented with tadpoles (♂ – 3.65 % and ♀ – 1.39 %) and adult specimens of *Pelophylax ridibundus*, recovered only from the female stomachs. The trophic niche breadths for both sexes are quite high (♂ – 22.70, ♀ – 17.45). The estimated trophic niche overlap between the sexes is moderate (63.8%), but the numeric proportion of all prey taxa occurring in the stomachs did not differ significantly between the sexes.

**Key words:** marsh frog, diet, trophic spectrum, niche overlap