

**INTRASPECIFIC COMPARISON OF THE ¹⁵N ISOTOPIC SIGNATURE IN
LIZARD POPULATIONS ISOLATED IN NATURAL MICROCOSMS:
EXPLORING ITS POTENTIAL IN TESTING SELECTION PRESSURES
SHIFTING THEIR TROPHIC LEVEL**

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Since Lindeman's original trophodynamic approach to ecosystem function, ecological theory has been developing several predictions on the extent of omnivory and on the stability of food-webs. Here, operative and time-integrative measures of a species characteristic trophic level are explored based on the isotopic signature of ¹⁵N in tail tissues of the lacertid *Podarcis lilfordi*. Fifteen extant populations are currently living on islets around the Balearic Islands, isolated for time periods proved to have involved adaptive shifts on their dietary spectra. An attempt to approach island biogeography theory with food web theory is made here in comparing isotopic signatures of subpopulations of a formerly predator strategy, as a dependent variable regressed against ecological parameters typifying the habitats supporting them: patch size and isolation, both presumed to determine the food-web complexity of each islet. Indeed, intersexual comparisons are also tested with the aim of searching for patterns and predictability of niche differentiation. Overall, $\delta^{15}\text{N}$ varied between 5 and 21 per mil. Whereas a majority of populations show rather uniform signatures, a few others allow for notorious divergences between individuals. Characteristic signatures are expressed as mean and variance for each population, as indications of trophic level and/or degree of omnivory, in an attempt to provide a basis for further steps aiming to test the stability of the measured values through time.