

---

# Dining with Obama: dietary diversity of an invasive terrestrial flatworm in France

Mathis Ventura\*<sup>1</sup>, Shanèze Noël<sup>1</sup>, Nicolas Mazuras<sup>1</sup>, Yoan Fourcade<sup>1</sup>, Lise Dupont<sup>1</sup>, and Virginie Roy<sup>1</sup>

<sup>1</sup>Institut d'écologie et des sciences de l'environnement de Paris (iEES Paris) – Institut de Recherche pour le Développement, Sorbonne Université, Université Paris-Est Créteil Val-de-Marne - Paris 12, Centre National de la Recherche Scientifique, Institut National de Recherche pour l'Agriculture, l'Alimentation et l'Environnement – France

## Abstract

Among invasive species threatening biodiversity through predation, the terrestrial flatworm *Obama nungara* has been established in metropolitan France for over a decade. Feeding on soil macrofauna, its diet had not been described in the field. Using gut contents metabarcoding, a broad prey spectrum is revealed among earthworms and gastropods. Focused on earthworms, results show that it feeds opportunistically, mainly based on encounters. Its wide and opportunistic diet illustrates traits linked with invasiveness, allowing us to infer potential impacts on soil functions.

**Keywords:** soil macrofauna, diet analysis, DNA metabarcoding, *Obama nungara*, earthworms, terrestrial gastropods

---

\*Speaker