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Introduction

- *Egeria najas* Planch., native to South America, and *Hydrilla verticillata* (Lf) Royle, native to Asia, are rooted and submerged macrophytes that have a similar morphological architecture.
- Here, we compare the ostracod fauna associated with a native (*E. najas*) and a non-native (*H. verticillata*) plant from the upper Paraná River floodplain (Brazil).

Results and Discussion

- 18 ostracods species were found, belonging to three families: Cyprididae, Limnocytheridae and Darwinulidae (Table 1). The most abundant species were *Diaphanocypris meridana* (Furtos, 1936), *Bradleytriebella lineata* (Victor & Fernando, 1981) and *Cypricercus alfredo* Almeida et al., 2021.

Table 1. Ostracod species recorded in the aquatic macrophytes.

Ostracod species	<i>Egeria najas</i>	<i>Hydrilla verticillata</i>
Family Cyprididae		
<i>Bradleytriebella lineata</i> (Victor & Fernando, 1981)	X	X
<i>Bradleytriebella trispinosa</i> (Pinto & Purper, 1965)	X	X
<i>Cabelodopsis hispida</i> (Sars, 1901)	X	
<i>Chlamydotheca iheringi</i> (Sars, 1901)	X	
Cyprettinae n. gen. n. sp. A	X	X
<i>Cypricercus alfredo</i> Almeida et al. 2021	X	X
<i>Cypridopsis vidua</i> O.F. Müller, 1898	X	X
<i>Diaphanocypris meridana</i> (Furtos, 1936)	X	X
<i>Pseudocypreta</i> n. sp.		
<i>Stenocypris major</i> Braid, 1985	X	X
<i>Stenocypris malayica</i> Victor & Fernando, 1981	X	X
<i>Strandesia lansactohai</i> Higuti & Martens, 2013	X	
<i>Strandesia nakatanii</i> Ferreira et al. 2020	X	X
<i>Strandesia tolimensi</i> Roessler, 1990	X	
<i>Strandesia nupelia</i> Higuti & Martens, 2013	X	
Family Darwinulidae		
<i>Alicenula serricaudata</i> (Klie, 1935)	X	X
<i>Vestalenela pagliolii</i> (Pinto & Kozian, 1961)	X	
Family Limnocytheridae		
<i>Cytheridella ilosvayi</i> Daday, 1905	X	X

- Ostracod richness (Fig. 2A) and abundance (Fig. 2B) were not significantly different between the two macrophyte species.

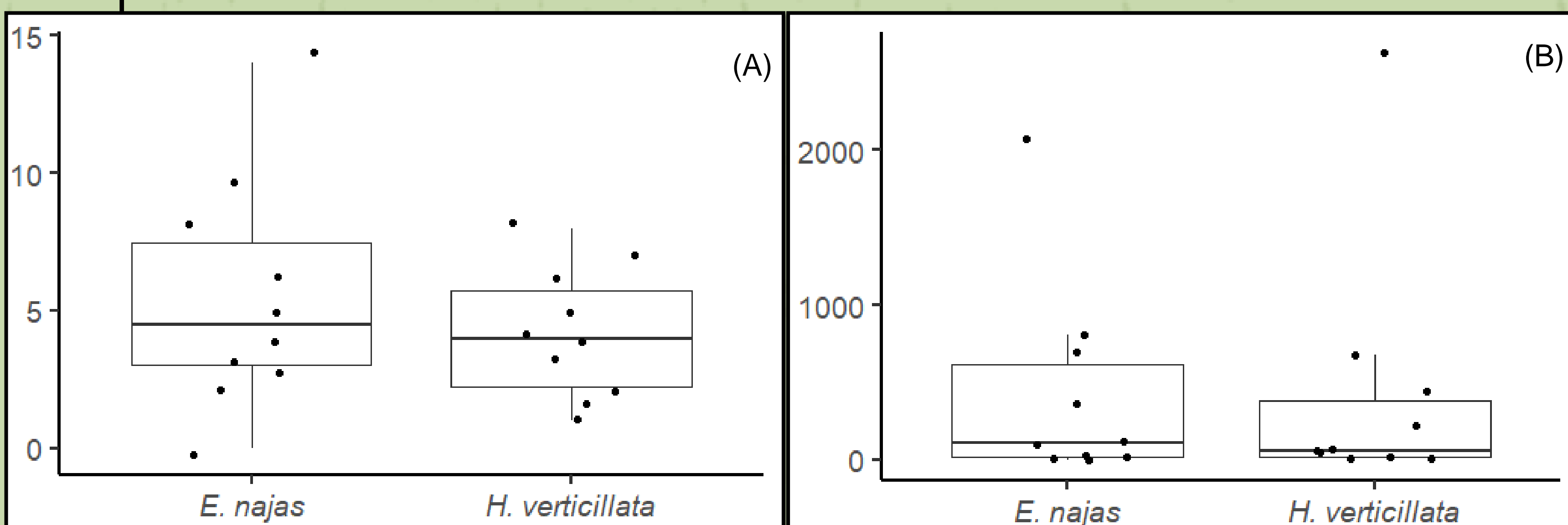


Fig 2. (A) Richness and (B) abundance of ostracods in both macrophyte species.

Material & Methods

- Ostracods associated with both macrophytes species were collected by moving a hand net (160 µm), through the macrophyte patches (Fig. 1).

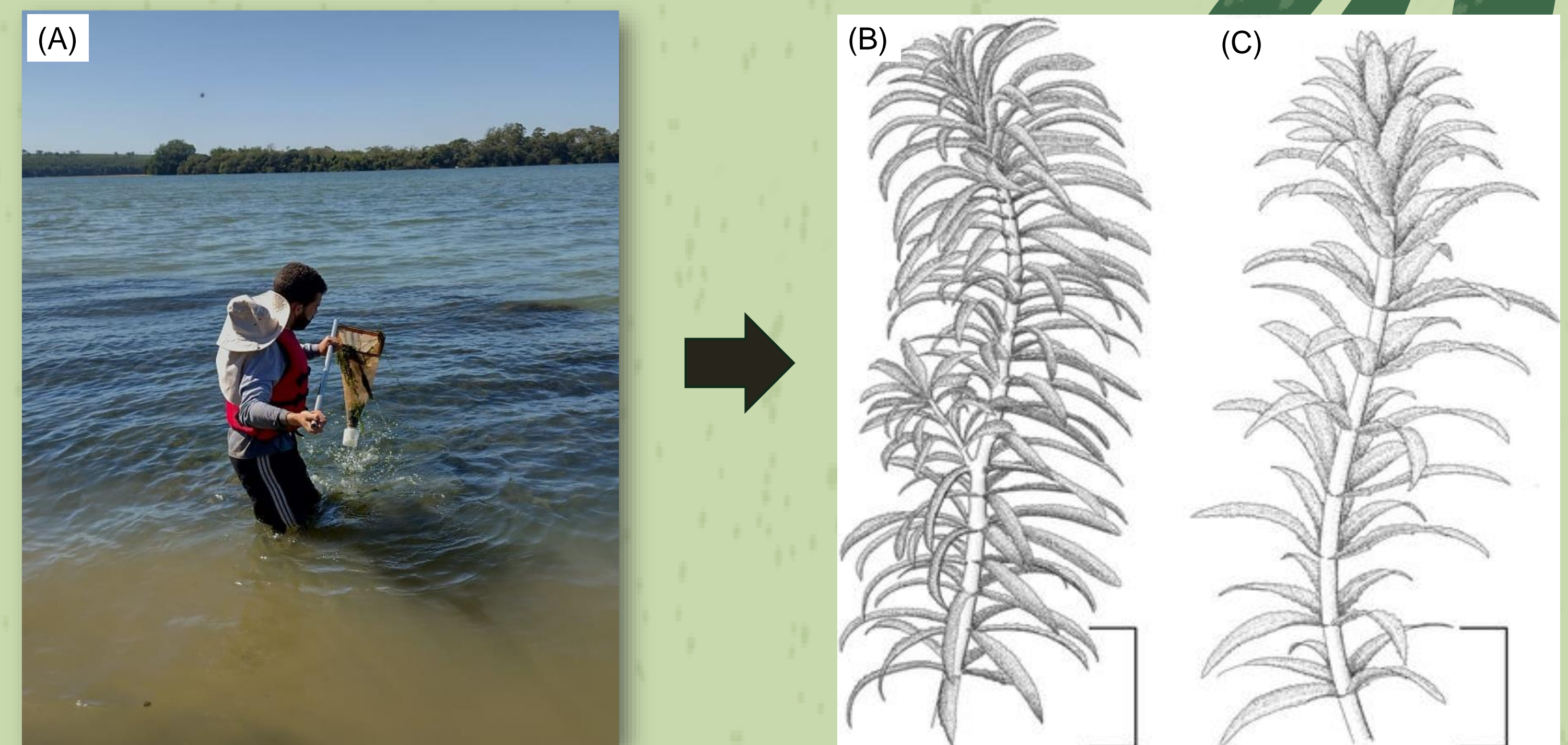


Fig 1. (A) Sampling of ostracods from the macrophytes. (B) *Egeria najas* and (C) *Hydrilla verticillata*.

- The PERMDISP (abundance data) showed that the variability in ostracod composition was similar between the two macrophyte species. In addition, also the species composition was homogeneous (PERMANOVA: $p > 0.05$) (Fig. 3).

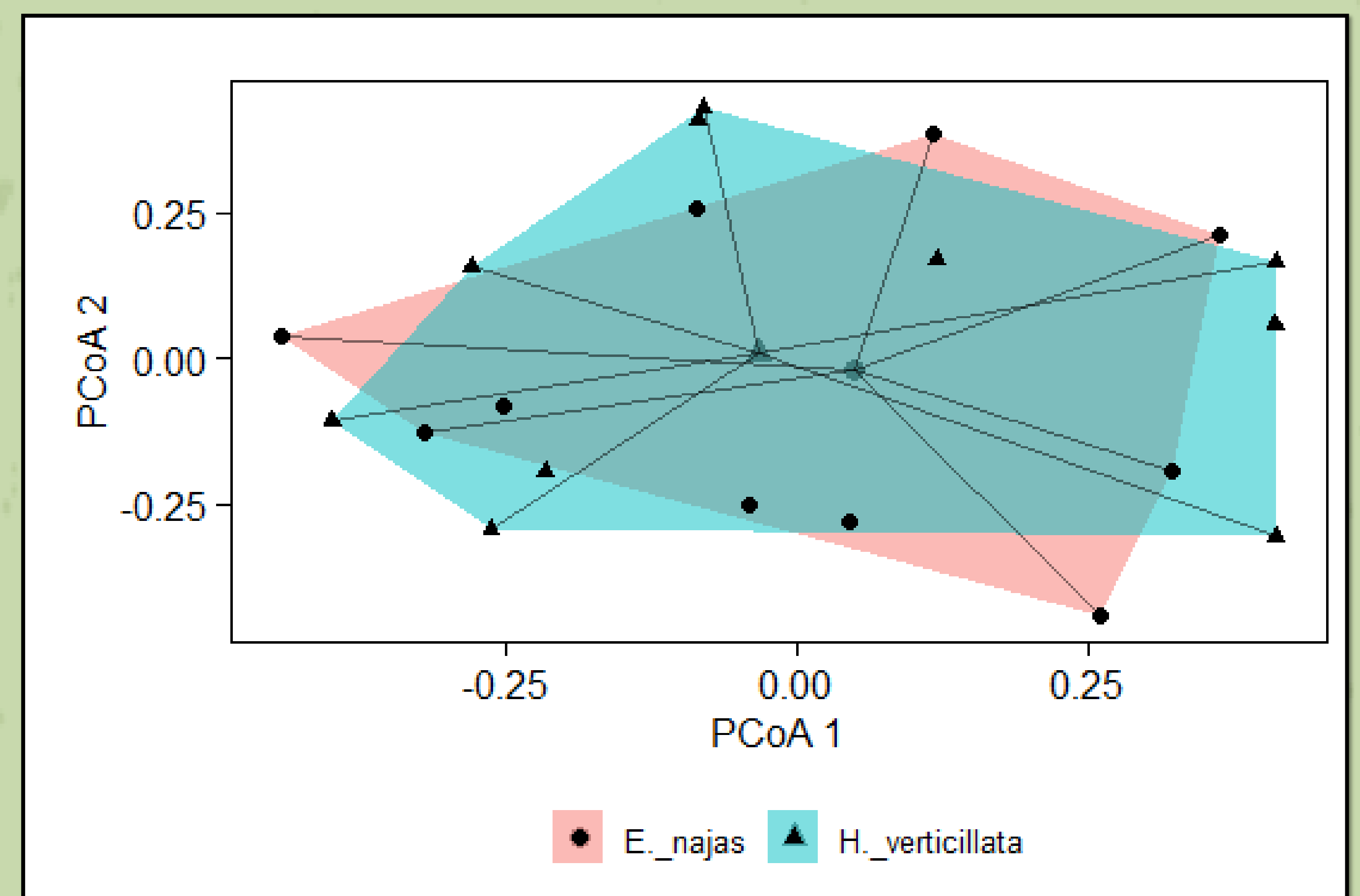


Fig 3. Principal coordinate analysis showing the variability of ostracod species composition between the two macrophyte species.

- The similarity between the ostracod faunas associated with native and non-native macrophytes, might be related to the similar architecture of these plants. This same trend has been observed for other invertebrate groups (e.g. Chironomidae - Gentilin-Avanci et al. 2021).
- *Hydrilla verticillata* seems to provide a suitable habitat for native ostracod communities. However, the ostracod species associated with *H. verticillata* are a subset of the fauna associated with *E. najas*, since no taxa were exclusively observed in the invasive macrophyte.

Gentilin-Avanci, C., Pinha, G.D., Petsch, D.K., Mormul, R.P., Thomaz, S.M. 2021. The invasive macrophyte *Hydrilla verticillata* causes taxonomic and functional homogenization of associated Chironomidae community. *Limnology* 22, 129–138. <https://doi.org/10.1007/s10201-020-00641-z>