



Importance of Mangroves During the Rainy Season for the Herpetofauna.



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INTRODUCTION

The large extension of wetlands of the Southern coast Gulf of Mexico has certainly promoted the abundance and diversity of species associated with this type of habitats. Fifty three percent of the wetlands of this region are located within the state of Tabasco and almost three percent of them are mangroves that refuge for species like as amphibians and reptiles. However, there are almost no studies regarding these groups on these habitats.



Figure 1. Mangrove area monitored

OBJECTIVE

The objective was to study the richness, diversity and abundance of amphibians and reptiles in six mangrove fragments among different type of vegetation during the rainy season on the coastal plains of Tabasco from 2009 to 2011.

METHODS

Four transects of 500 m length and 500 m width were established as monitoring stations.

Monitoring was performed during three days, twice a day, 9 to 12 in the morning and 6 to 9 at night.

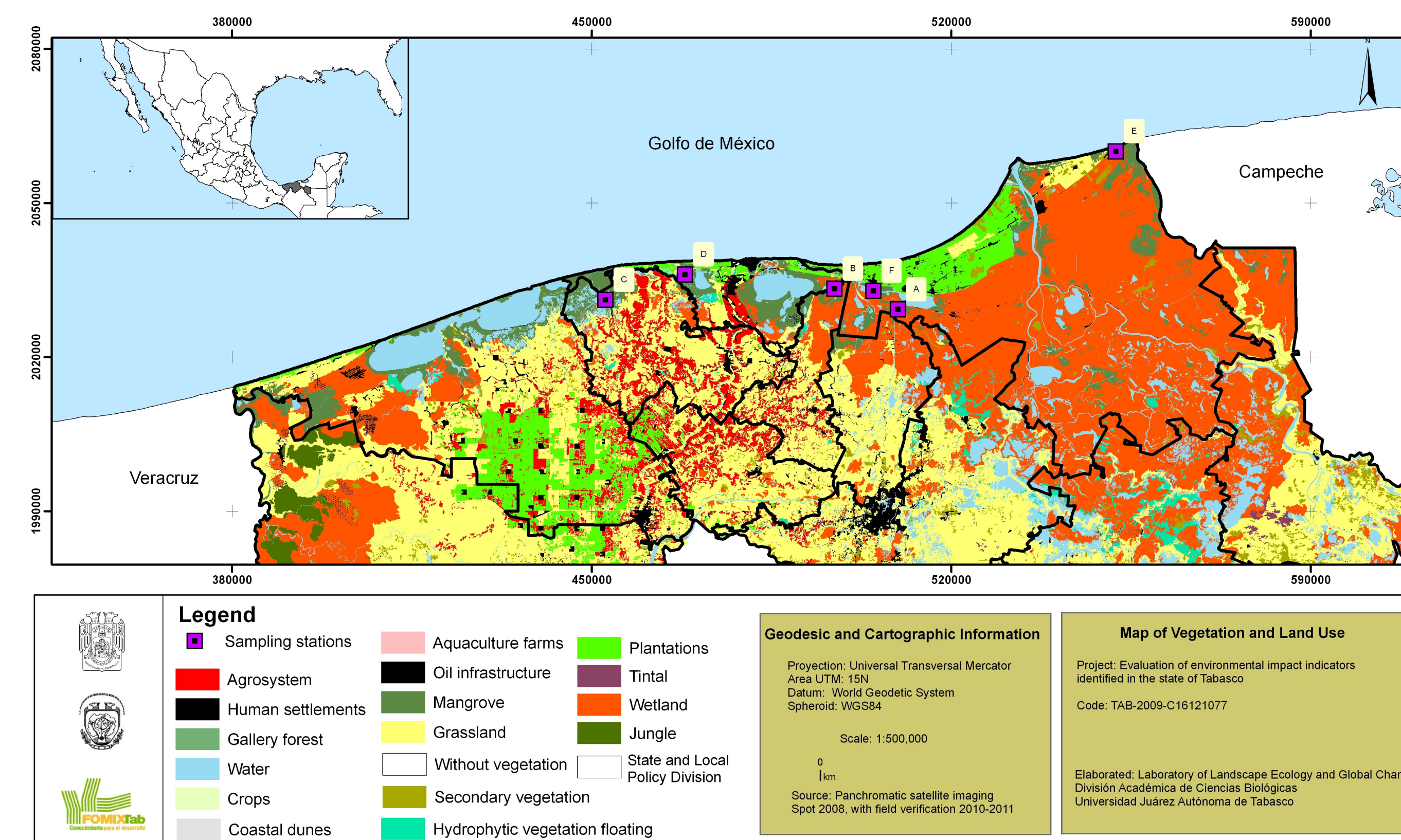


Figure 2. Map of Sampling stations in the State of Tabasco, Mexico.

Diversity was estimated using Shannon-Wiener index To index was used Surrounding Pressure Map published by the INE (2000).

Was analyzed the richness of the threatened species according with the Surrounding Pressure Index.

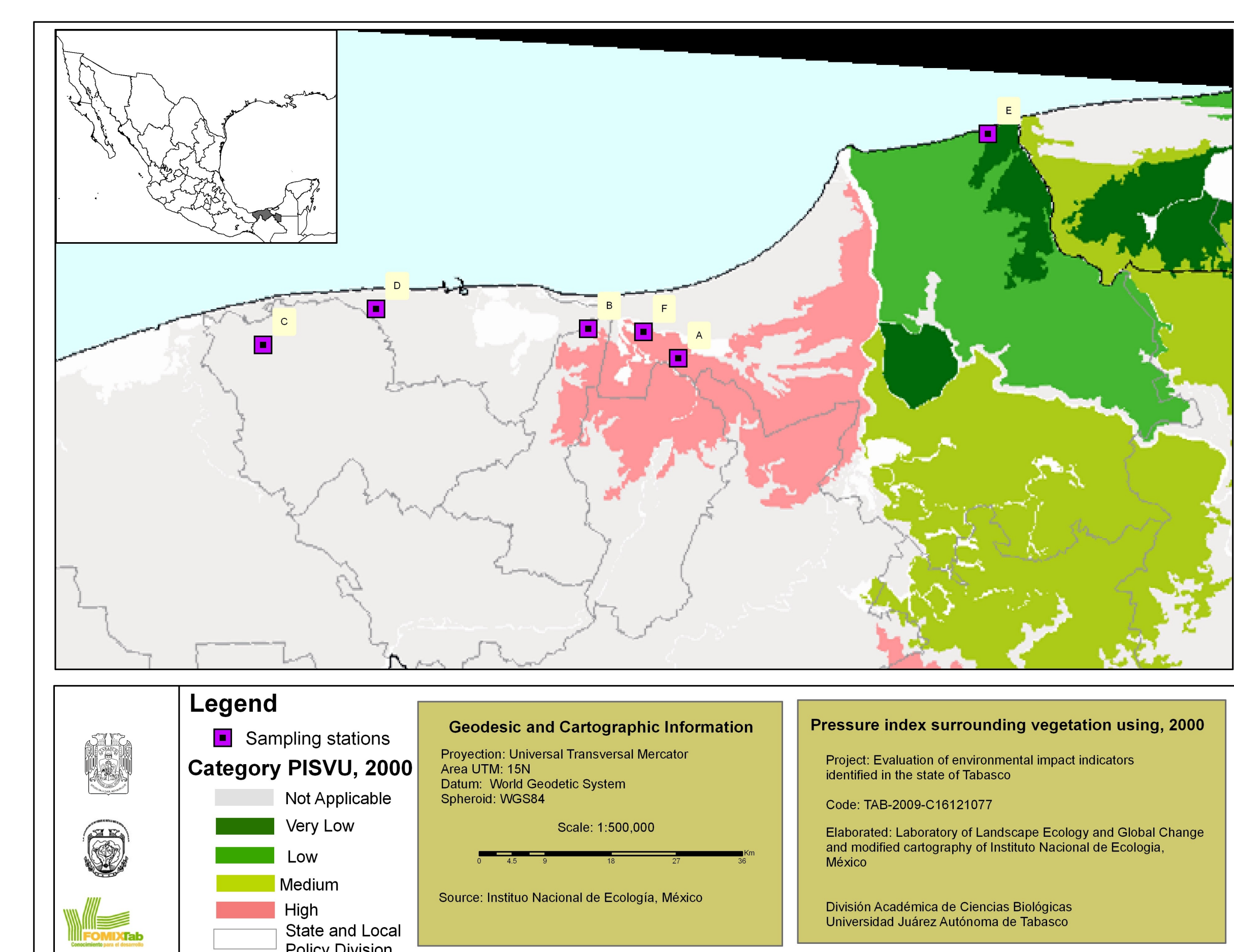


Figure 3. Map of Pressure Index Surrounding vegetations using (Adapted from the INE, 2000).

RESULTS

1,302 records of amphibians and reptiles were obtained.

33 species were registered (11 amphibians and 22 reptiles), of which 11 species are listed in the species at risk list (NOM-059-SEMARNAT-2010) under different categories.

The most abundant amphibian is *Leptodactylus melanonotus* (L.mel) and *Dendropsophus microcephalus* (D.mic) (Figure 4 i) . Both are disturbance indicator species.

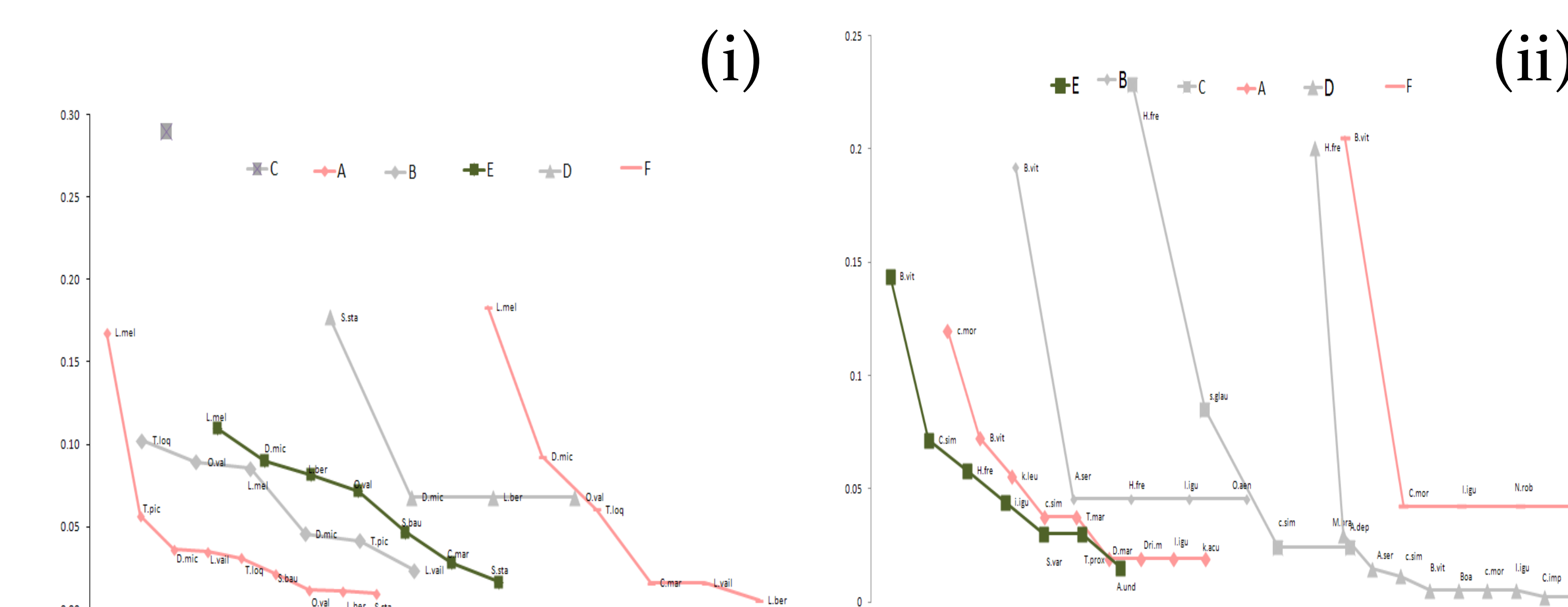


Figure 4. Curve of rank abundance for amphibians (i) and reptiles (ii) in six mangrove. Surrounding use of the vegetation index (C, D, B = no applied, F, A = high, E = very low).

The most abundant reptil were the *Basiliscus vittatus* (B.vit) y *Hemidactylus frenatus* (H.fre) (figure 4 ii), Both are disturbance indicator species also (Reynoso-Rosales *et al.* 2005; Cedeño-Vázquez, 2006).

Stations A and B had the highest richness and B also the highest diversity. Station A had the highest richness of species at risk list (Figure 5).

The station A is located in an area with a high Surrounding Pressure Index. That's why the station could be considered an important reservoir for the herpetofauna in the rainy season (Figure 5)

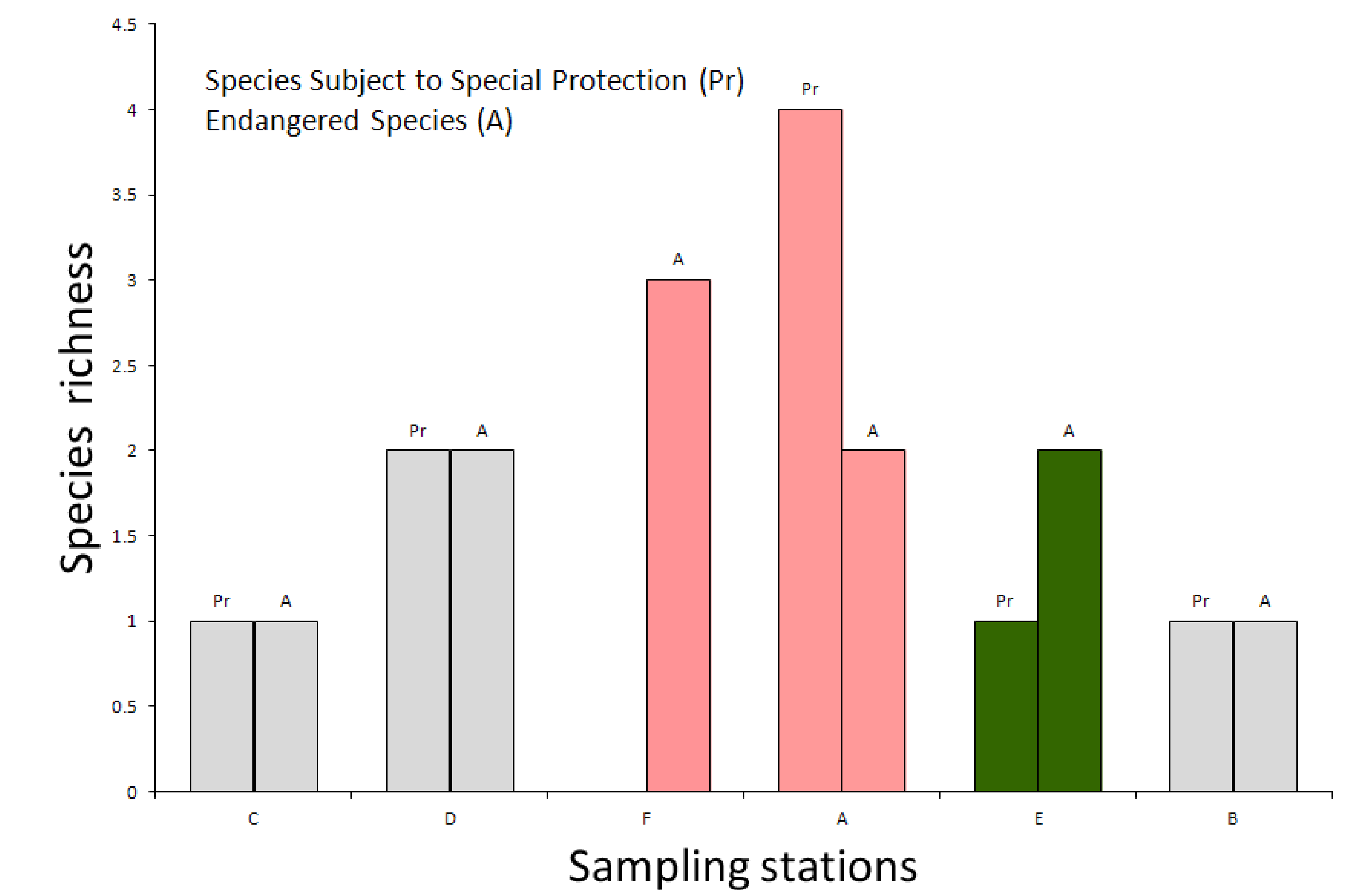


Figure 5. Species richness in risk category.



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Wildlife Area of COVINSE.

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