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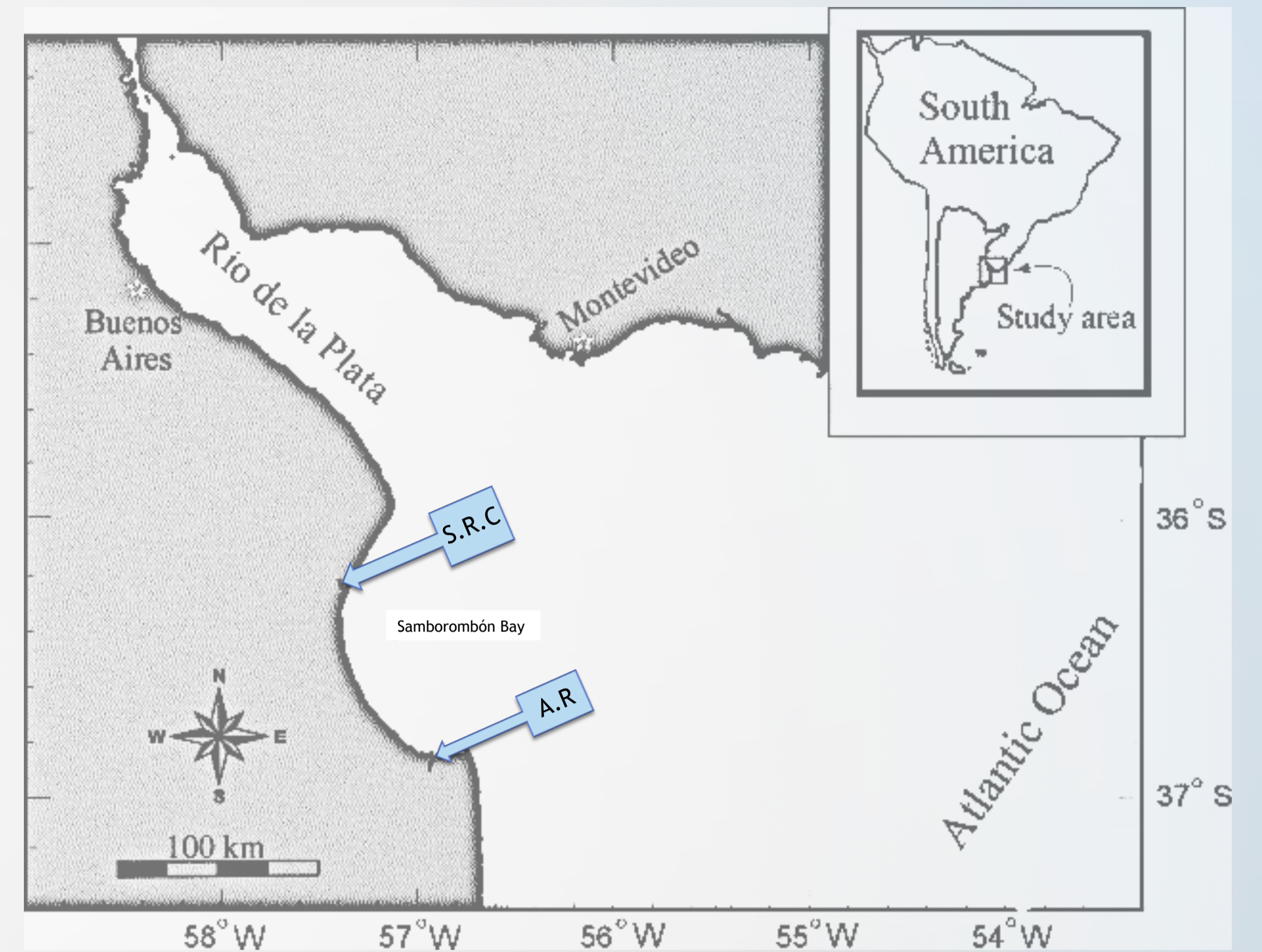
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INTRODUCTION AND METHODS

The objective of this study was to estimate the parasitological biodiversity in juveniles of mullets (*Mugil liza*) in two different feeding areas from Samborombón Bay (35°53'S 57°4'W). This place is one of the most extensive, rich and important wetland of Argentina, and was declared Ramsar Site in 1997.

Samples of juvenile mullets were collected from two sites between 2009 and 2010: site 1- Ajo River (A.R) in the south of the bay (n= 148 mullets), and site 2-Salado River Channel (S.R.C) in the north (n= 130 mullets).



Collections sites in Samborombon Bay: Salado River Channel (S.R.C) and Ajo River (A.R).

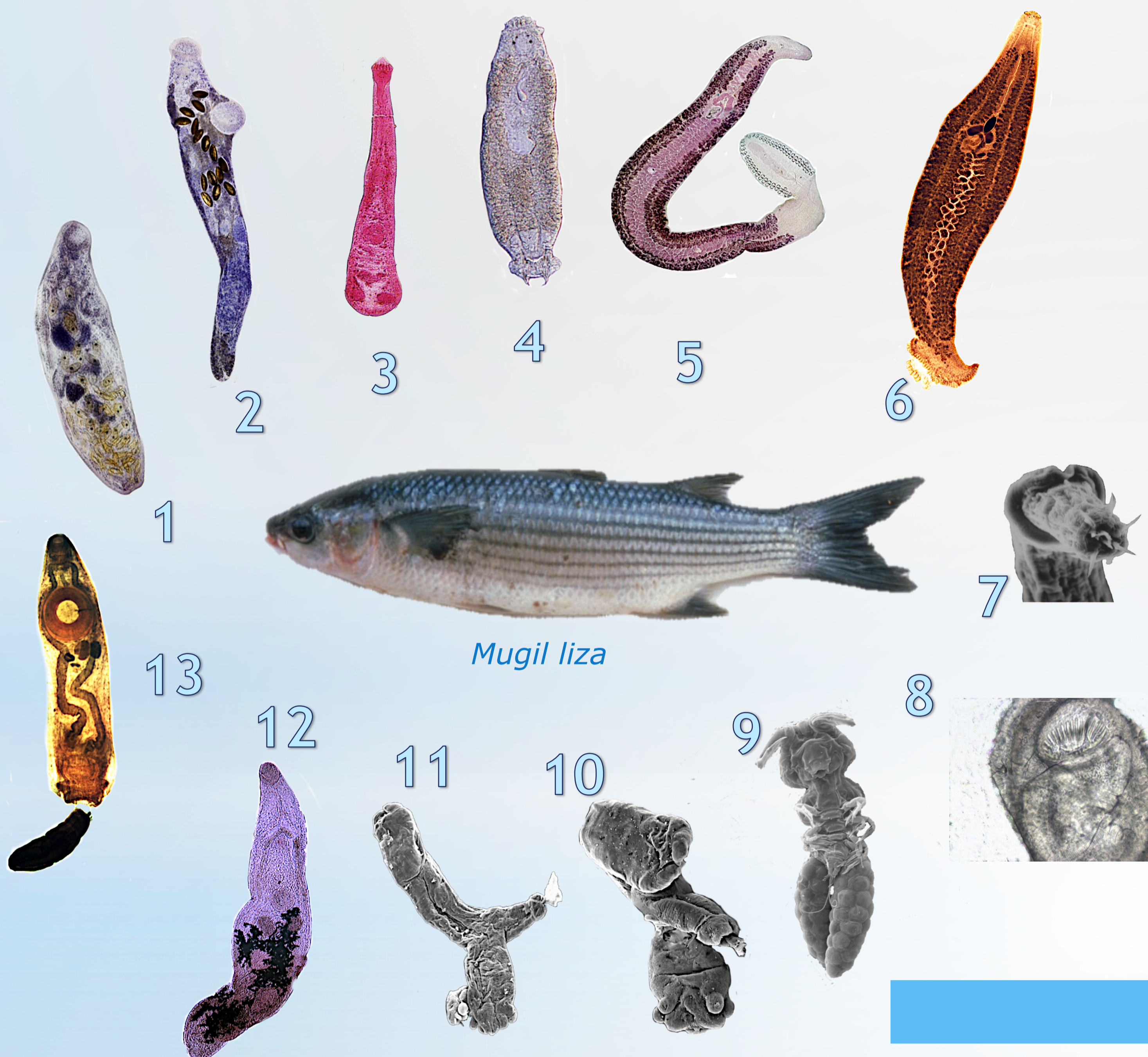


Figure	Parasites	A.R	S.R.C
1	<i>Dicrogaster fastigata</i>	73 (65-80)	54 (45-62)
2	<i>Hymenocotta manteri</i>	9 (4-13)	28 (21-36)
3	<i>Ascocotyle (Phagicola) longa</i>	34 (27-42)	23 (16-30)
4	<i>Ligophorus sp.</i>	46 (38-54)	49 (40- 57)
5	<i>Metamicrotyle macrantha</i>	9 (5-11)	0
6	<i>Microcotyle pseudomugilis</i>	4 (1-7)	4 (1-7)
7	<i>Flolidosentis mugilis</i>	21 (14-27)	11 (6-16)
8	Metacercaria Cryptogonimidae	1 (0-4)	0
9	<i>Ergasilus sp.</i>	11 (6-16)	6 (2-10)
10	<i>Parabrachiella sp 1</i>	38 (30-46)	2 (1-7)
11	<i>Parabrachiella sp 2</i>	7 (3-12)	0
12	<i>Phyllostomum mugilis</i>	1 (0-3)	0
13	Metacercaria Hemiuridae	0	2 (0-4)

TABLE 1. - Parasitic fauna and prevalence in Ajo River (A.R) and Salado River Channel (S.R.C) from Samborombon Bay, Argentina. Statistically significant data in bold.

Index	A.R	S.R.C
Complementary Simpson	1.17 (1.17-1.18)	1.63 (1.63-1.66)
Shannon-Wiener	0.37 (0.36-0.38)	0.82 (0.80-0.85)
Pielou	0.14	0.31 (0.30-0.32)
Jaccard	0.78 (0.78-0.79)	

TABLE 2.- Diversity indexes in Ajo River (A.R) and Salado River Channel (S.R.C) from Samborombon Bay, Argentina

RESULT AND CONCLUSION

Thirteen species of metazoan parasites were collected (Table1): six digenean (metacercariae and adults), three copepods, three monogenean, and one acanthocephalan. The clear dominance of digenean endoparasites has been previously reported for other parasite communities of marine fishes (Luque et al 1999, 2001). Among parasites found, the metacercariae of *A. (Pagicola) longa* was recently identified by molecular means in Argentina. (Martorelli et al. 2012). This species could potentially have zoonotic importance in the area. Both reported copepods of the genus *Parabrachiella* represent new species still not described. Among them *Parabrachiella sp 1* has been described causing lesions in narina of mullets and its location is new for this genus of copepods (Plaul et al. 2012).

In this study Bayesian statistics was used to calculate the prevalence (mean and credible interval) from the two sites (Table 1) and then, the diversity indexes was calculated using the WinBUGS software (Table 2). The Deviance Information Criterion (DIC) was calculated for a LogNorm and Gamma models. The DIC value was 179.07 for Gamma model, and 196.2 for LogNorm model. This indicating that the gamma model seems to be the best model between them. The Pielou and complementary Simpson index reveal a better equitability in S.R.C, despite higher species richness in A.R. But, when analyzes the Shannon-Wiener index, we conclude that the S.R.C is more diverse. The similarity between sites is 78%. The differences between sites seem to be due to bigger marine influence in site 1. Site 2 is more influenced by La Plata River mouth.

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