# ISPM

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## Peces

#### Estructura comunitaria

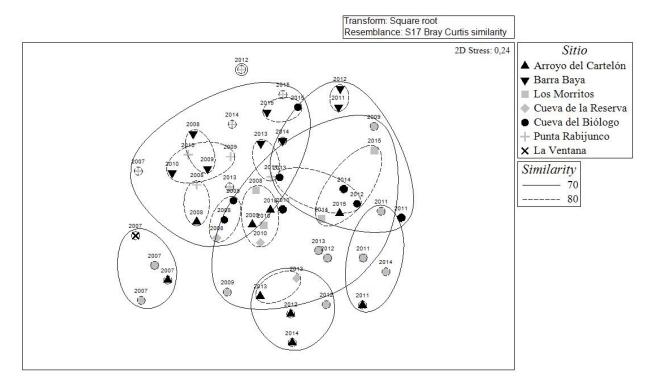
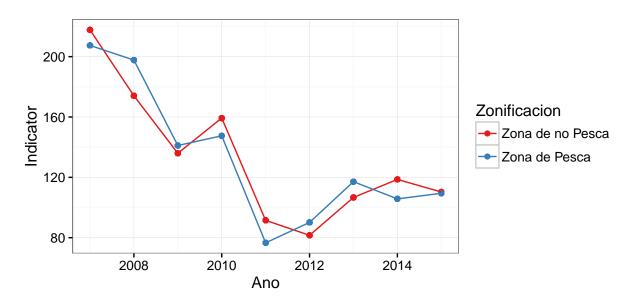


Figure 1: Escalamiento multidimensional no métrico para peces. Los marcadores en negro y gris representan zonas de pesca y no pesca, respectivamente.

## Densidad promedio por zona



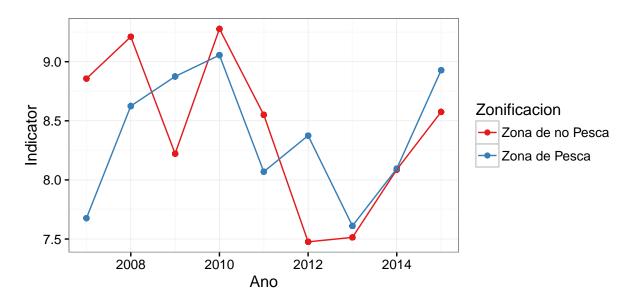
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Table 1: Modelos lineales describiendo cambios en las densidades promedio por zona.

	Densidad (orgs / transecto)		
	Pesca	Reserva	
	(1)	(2)	(3)
Año	-12.889	-12.207	-15.905
	t = -3.249**	$t = -3.125^{**}$	$t = -5.903^{***}$
Zonificacion			-8.412
			t = -2.266**
Temperatura	26,053.270	24,681.770	32,296.540
	t = 3.266**	$t = 3.142^{**}$	$t = 5.922^{***}$
$R^2$	0.601	0.583	0.714
Adjusted R <sup>2</sup>	0.544	0.523	0.673
Residual Std. Error	30.727 (df = 7)	30.256 (df = 7)	25.449 (df = 14)
F Statistic	$10.558^{**} (df = 1; 7)$	$9.767^{**} (df = 1; 7)$	$17.486^{***} (df = 2; 14)$
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*Note:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

## Riqueza promedio por zona



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Table 2: Modelos lineales describiendo cambios en las densidades promedio por zona.

	Riqueza (s / transecto) S	
	Pesca	Reserva
	(1)	(2)
Año	0.003	-0.129
Constant	t = 0.046 $1.442$ $t = 0.010$	t = -1.680 $267.160$ $t = 1.735$
$\mathbb{R}^2$	0.0003	0.287
Adjusted R <sup>2</sup>	-0.143	0.186
Residual Std. Error $(df = 7)$	0.576	0.593
F Statistic (df = $1; 7$ )	0.002	2.823
Notes	*n <0 1. **n <0 05. ***n <0 01	

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

#### Biomasa promedio por zona



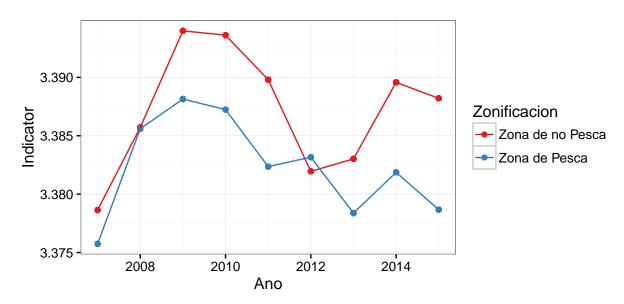
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Table 3: Modelos lineales describiendo cambios en las densidades promedio por zona.

	Biomasa (grs) B	
	Pesca Reserva	
	(1)	(2)
Año	467.307	1,191.358
Constant	t = 0.646  -927,948.900  t = -0.638	t = 1.794  -2,381,956.000  t = -1.784
Adjusted R <sup>2</sup>	-0.079	0.217
Residual Std. Error $(df = 7)$	5,604.198	5,143.631
F Statistic (df = $1; 7$ )	0.417	3.219
Note:	*p<0.1; **p<0.05; ***p<0.01	

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## Nivel trófico promedio por zona

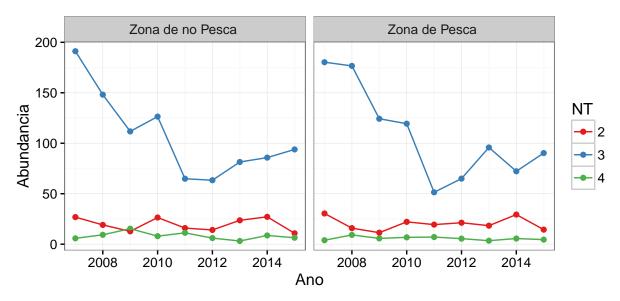


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Table 4: Modelos lineales describiendo cambios en las densidades promedio por zona.

	Nivel Trófico	
	NT	
	Pesca	Reserva
	(1)	(2)
Año	-0.0004	0.0003
	t = -0.685	t = 0.377
Constant	4.157	2.842
	t = 3.674***	t = 1.968*
Adjusted $\mathbb{R}^2$	-0.071	-0.120
Residual Std. Error $(df = 7)$	0.004	0.006
F Statistic ( $df = 1; 7$ )	0.469	0.142
Note:	*p<0.1; **p<0.05; ***p<0.01	

## Proporciones de Nivel Trófico en Peces



Pearson's Chi-squared test

data: pro.NT\_P X-squared = 0.38274, df = 16, p-value = 1

Pearson's Chi-squared test

data: pro.NT\_R X-squared = 0.29691, df = 16, p-value = 1

## Invertebrados

#### Estructura comunitaria

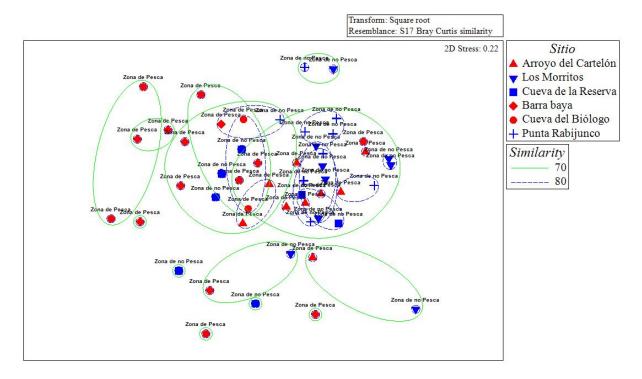
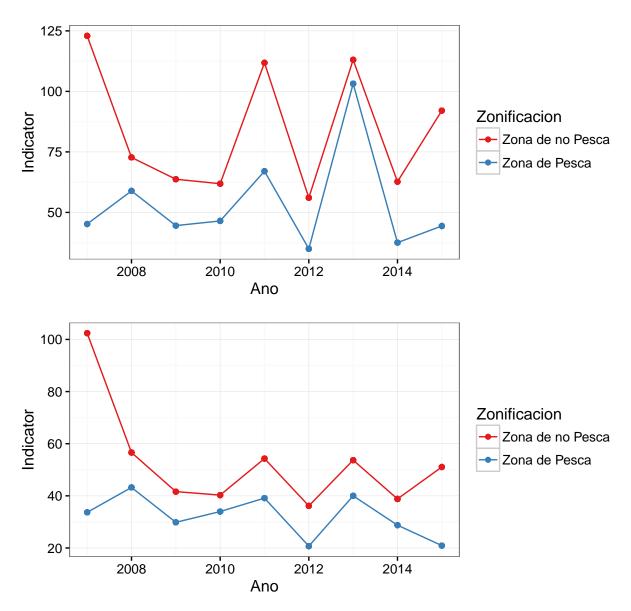


Figure 2: Escalamiento multidimensional no métrico para invertebrados. Los marcadores rojos y azules representan zonas de pesca y no pesca, respectivamente.

## Densidad promedio por zona

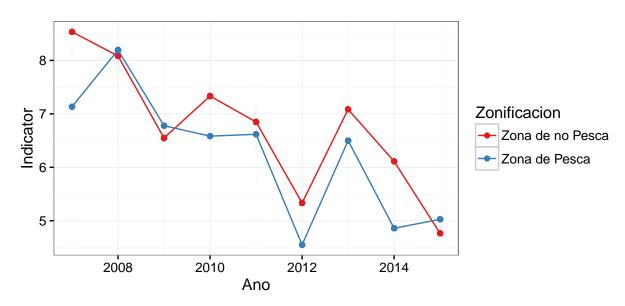


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Table 5: Modelos lineales describiendo cambios en las densidades promedio por zona.

	$\frac{\text{Densidad (org / transecto)}}{\text{N}}$	
	Pesca Reserv	
	(1)	(2)
Año	0.640	-1.013
Constant	$t = 0.220 \\ -1,232.770$	$t = -0.282 \\ 2,120.260$
	t = -0.211	t = 0.294
Adjusted $R^2$	-0.135	-0.130
Residual Std. Error $(df = 7)$	22.482	27.773
F Statistic (df = $1; 7$ )	0.049	0.080
Note:	*p<0.1; **p<0.05; ***p<0.01	

## Riqueza promedio por zona



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Table 6: Modelos lineales describiendo cambios en las densidades promedio por zona.

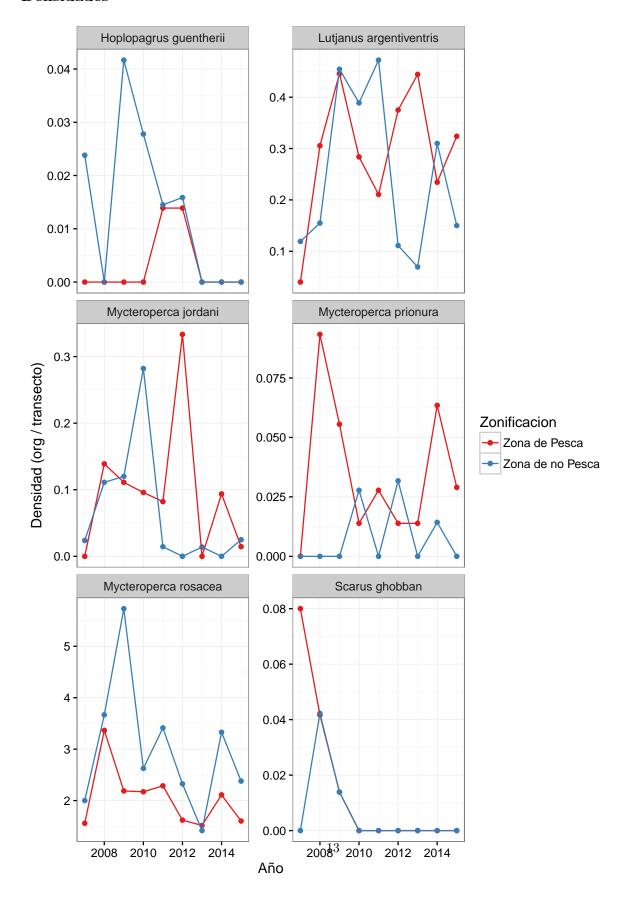
	Riqueza S	
	Pesca	Reserva
	(1)	(2)
Año	-0.350	-0.365
Constant	$t = -3.543^{***}$ $710.537$ $t = 3.574^{***}$	$t = -3.838^{***}$ $741.466$ $t = 3.873^{***}$
Adjusted R <sup>2</sup>	0.591	0.632
Residual Std. Error $(df = 7)$	0.766	0.737
F Statistic ( $df = 1; 7$ )	12.552***	14.731***
F Statistic (df = 1; 7)  Note: $M_{\text{obs}}$	12.552*** *n <0.1. **n	

Note:

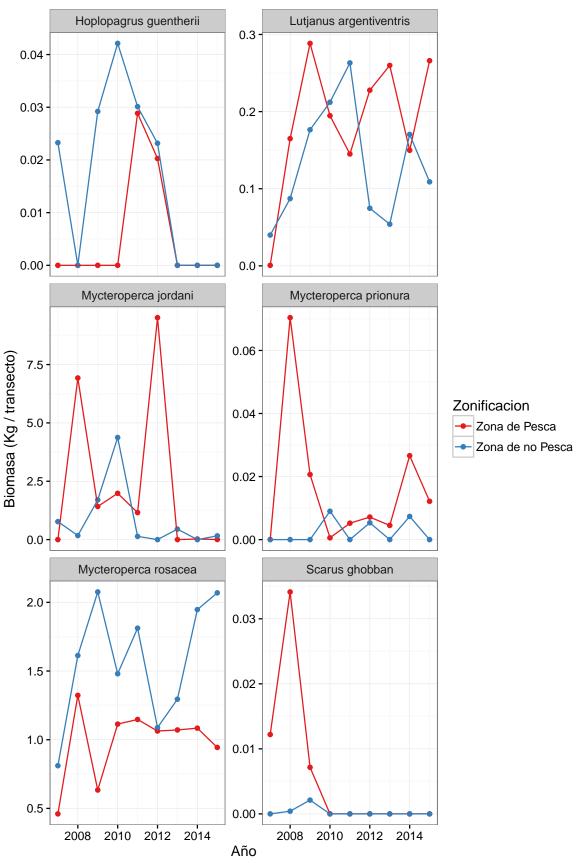
\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

## Especies objetivo de RBISPM

#### Densidades



#### Biomasa



## Tallas

