

**MSF 1.** Precipitación mensual total (barras grises) y patrón histórico de precipitación (1931-2021) (línea negra). Elaborada según banco de datos del Instituto de Hidrología, Meteorología y Estudios Ambientales-IDEAM.

**MSF 1.** Total monthly precipitation (gray bars) and historical precipitation pattern (1931-2021) (black line). Prepared using the database of the Institute of Hydrology, Meteorology and Environmental Studies-IDEAM.

MST 1

Resultados de los modelos aditivos generalizados univariados (GAM) para la especie Larimus argenteus n=45, donde se evaluó la variación del consumo de crustáceos, peces, nemátodos, detritos y microplásticos, según cada variable ambiental. Son expuestos el ajuste del modelo (Adj. R²), porcentaje de variación explicada (D.E (%)) por cada variable, y los grados efectivos de libertad (Edf). Si Edf es igual a 1 es una asociación lineal positiva o negativa según el signo. Se muestra el valor de (k) para los que, en la comprobación del modelo GAM.check, los p-value > 0.5

SMT 1

Results of univariate generalized additive models (GAM) for the species *Larimus argenteus* n=45, where the variation in the consumption of crustaceans, fish, nematodes, detritus and microplastics was evaluated according to each environmental variable. The model fit (Adj. R²), percentage of explained variation (SD (%)) by each variable, and the effective degrees of freedom (Edf) are shown. If Edf is equal to 1, it is a positive or negative linear association depending on the sign. The value of (k) is shown for those who, in the GAM.check model, the p-value > 0.5

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | Salinidad | Temperatura (°C) | pH | Oxígeno Disuelto  (mg l−1) | Transparencia (cm) |
| Crustáceos | Edf | **3.707** | **4.793** | **7.731** | 1.000 | 1.059 |
| *F*−value | 10.53 | 6.754 | 4.808 | 1.908 | 0.668 |
| p value | \*\*\* | \*\*\* | \*\*\* | 0.174 | 0.397 |
| D.E (%) | 54.5 | 51.4 | 56.5 | 4.25 | 2.19 |
| Adj. R2 | 0.503 | 0.455 | 0.472 | 0.020 | −0.002 |
|  | k | 6 | 9 | 12 | − | − |
| Peces | Edf | 1.000 | 1.002 | 1.000 | 1.000 | 1.000 |
| *F*−value | 1.495 | 0.405 | 1.495 | 3.449 | 0.345 |
| p value | 0.228 | 0.530 | 0.228 | 0.070 | 0.560 |
| D.E (%) | 3.36 | 0.939 | 3.36 | 7.43 | 0.795 |
| Adj. R2 | 0.011 | −0.014 | 0.011 | 0.053 | −0.015 |
|  | k | − | − | − | − | − |
| Nemátodos | Edf | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| *F*−value | 0.664 | 1.890 | 1.475 | 1.276 | 1.523 |
| p value | 0.420 | 0.176 | 0.231 | 0.265 | 0.224 |
| D.E (%) | 1.52 | 4.21 | 3.32 | 2.88 | 3.42 |
| Adj. R2 | −0.008 | 0.020 | 0.011 | 0.006 | 0.012 |
|  | k | − | − | − | − | − |
| Detritos | Edf | 1.000 | 1.000 | 1.000 | 1.000 | 1.690 |
| *F*−value | 0.783 | 1.516 | 1.155 | 0.008 | 1.017 |
| p value | 0.381 | 0.225 | 0.288 | 0.930 | 0.322 |
| D.E (%) | 1.79 | 3.4 | 2.62 | 0.0181 | 6.86 |
| Adj. R2 | −0.005 | 0.012 | 0.003 | −0.023 | 0.031 |
|  | k | − | − | − | − | − |
| Microplásticos | Edf | 1.000 | 1.000 | 1.000 | 1.579 | 1.000 |
| *F*−value | 0.000 | 0.000 | 1.924 | 0.581 | 0.368 |
| p value | 0.987 | 0.988 | 0.173 | 0.476 | 0.547 |
| D.E (%) | 0.000 | 0.000 | 4.28 | 4.9 | 0.849 |
| Adj. R2 | −0.023 | −0.023 | 0.021 | 0.014 | −0.015 |
|  | k | − | − | − | − | − |

\*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001



**MSF 2.** Representación gráfica de los modelos aditivos generalizados univariados (GAM) para la especie L. argenteus n = 45, donde se evaluó la variación del consumo de crustáceos, respecto de las variables ambientales con las que tuvo relación estadísticamente significativa: salinidad y temperatura.

**MSF 2.** Graphical representation of the univariate generalized additive models (GAM) for the species *L. argenteus* n = 45, where the variation in crustacean consumption was evaluated, with respect to the environmental variables with which it had a statistically significant relationship: salinity and temperature.

MST 2

Resultados de los modelos aditivos generalizados univariados (GAM) para la especie Stellifer zestocarus n = 37, donde se evaluó la variación del consumo de crustáceos, peces, nemátodos, detritos y microplásticos, según cada variable ambiental. Son expuestos el ajuste del modelo (Adj. R²), porcentaje de variación explicada (D.E (%)) por cada variable, y los grados efectivos de libertad (Edf). Si Edf es igual a 1 es una asociación lineal positiva o negativa según el signo k = 3

SMT 2

Results of univariate generalized additive models (GAM) for the species *Stellifer zestocarus* n = 37, where the variation in the consumption of crustaceans, fish, nematodes, detritus and microplastics was evaluated according to each environmental variable. The model fit (Adj. R²), percentage of explained variation (SD (%)) by each variable, and the effective degrees of freedom (Edf) are presented. If Edf is equal to 1, it is a positive or negative linear association depending on the sign k = 3

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | Salinidad | Temperatura (°C) | pH | Oxígeno Disuelto  (mg l−1) | Transparencia (cm) |
| Crustáceos | Edf | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| *F*−value | 0.102 | 0.101 | 0.000 | 0.103 | 0.089 |
| p value | 0.752 | 0.753 | 0.987 | 0.751 | 0.767 |
| D.E % | 0.2 | 0.28 | 0.00 | 0.29 | 0.25 |
| Adj. R2 | −0.026 | −0.026 | −0.029 | −0.026 | −0.026 |
|  | k | − | − | − | − | − |
| Peces | Edf | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| *F*−value | 0.193 | 0.025 | 0.038 | 0.217 | 0.013 |
| p value | 0.663 | 0.876 | 0.846 | 0.644 | 0.912 |
| D.E % | 0.5 | 0.07 | 0.10 | 0.61 | 0.03 |
| Adj. R2 | −0.029 | −0.028 | −0.028 | −0.022 | −0.028 |
|  | k | − | − | − | − | − |
| Nemátodos | Edf | **1.824** | **4.823** | **2.989** | **4.679** | 1.000 |
| *F*−value | 3.805 | 44.87 | 421.4 | 242.8 | 2.739 |
| p value | \* | \*\*\* | \*\*\* | \*\*\* | 0.107 |
| D.E % | 18.3 | 88.1 | 97.5 | 97.5 | 7.26 |
| Adj. R2 | 0.140 | 0.863 | 0. 972 | 0.971 | 0.046 |
|  | k | 3 | 6 | 4 | 6 | − |
| Detritos | Edf | 1.000 | **1.927** | 1.000 | 1.000 | **3.373** |
| *F*−value | 2.812 | 11.480 | 0.213 | 1.437 | 4.922 |
| p value | 0.102 | \*\*\* | 0.647 | 0.239 | \*\* |
| D.E % | 7.44 | 42.4 | 0.60 | 3.94 | 40.0 |
| Adj. R2 | 0.048 | 0.392 | −0.022 | 0.012 | 0.340 |
|  | k | − | 3 | − | − | 6 |
| Microplásticos | Edf | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| *F*−value | 0.624 | 0.387 | 0.029 | 0.250 | 0.494 |
| p value | 0.435 | 0.538 | 0.866 | 0.620 | 0.487 |
| D.E % | 1.75 | 1.09 | 0.08 | 0.71 | 1.39 |
| Adj. R2 | −0.011 | −0.017 | −0.028 | −0.021 | −0.014 |
|  | k | − | − | − | − | − |

\*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

|  |  |
| --- | --- |
| **a** |  |
| **b** |  |

**MSF 3.** Representación gráfica de los modelos aditivos generalizados univariados (GAM) para la especie Stellifer zestocarus n = 37, donde se evaluó la variación del consumo. **A.** Nemátodos. **B.** Detritos.

**MSF 3.** Graphical representation of univariate generalized additive models (GAM) for the species Stellifer zestocarus n = 37, where the variation in consumption was evaluated. **A.** Nematodes. **B.** Detritus.

MST 3

Resultados de los modelos aditivos generalizados univariados (GAM) para la especie Stellifer melanocheir n=14, donde se evaluó la variación del consumo de crustáceos, peces, nemátodos, detritos y microplásticos, según cada variable ambiental. Son expuestos el ajuste del modelo (Adj. R²), porcentaje de variación explicada (D.E (%)) por cada variable, y los grados efectivos de libertad (Edf). Si Edf es igual a 1 es una asociación lineal positiva o negativa según el signo k=3

SMT 3

Results of univariate generalized additive models (GAM) for the species *Stellifer melanocheir* n = 14, where the variation in the consumption of crustaceans, fish, nematodes, detritus, and microplastics was evaluated according to each environmental variable. The model fit (Adj. R²), percentage of explained variation (SD (%)) by each variable, and the effective degrees of freedom (Edf) are presented. If Edf is equal to 1, it indicates a positive or negative linear association depending on the sign k=3

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Salinidad | | Temperatura (°C) | pH | Oxígeno Disuelto  (mg l−1) | Transparencia (cm) |
| Crustáceos | Edf | | **1.998** | 1.000 | 1.506 | 1.418 | 1.000 |
| *F*−value | | 7.710 | 0.785 | 0.487 | 0.697 | 1.665 |
| p value | | \*\* | 0.393 | 0.636 | 0.613 | 0.221 |
| D.E (%) | | 62.1 | 6.1 | 11.8 | 11.3 | 12.2 |
| Adj. R2 | | 0.553 | −0.017 | 0.003 | 0.005 | 0.049 |
|  | k | | 4 | − | − | − | − |
| Peces | Edf | | 1.361 | 1.000 | 1.000 | 1.000 | 1.000 |
| *F*−value | | 0.187 | 0.001 | 0.418 | 0.333 | 0.026 |
| p value | | 0.789 | 0.981 | 0.530 | 0.574 | 0.874 |
| D.E (%) | | 7.41 | 0.005 | 3.37 | 2.7 | 0.22 |
| Adj. R2 | | −0.034 | −0.0833 | −0.047 | −0.054 | −0.081 |
|  | k | | − | − | − | − | − |
| Nemátodos | Edf | | 1.000 | 1.000 | 1.345 | 1.780 | 1.000 |
| *F*−value | | 0.293 | 0.502 | 3.037 | 3.262 | 0.420 |
| p value | | 0.598 | 0.492 | 0.065 | 0.058 | 0.529 |
| D.E (%) | | 2.39 | 4.01 | 36 | 43.1 | 3.38 |
| Adj. R2 | | −0.058 | −0.040 | 0.286 | 0.340 | −0.047 |
|  | k | | − | − | − | − | − |
| Detritos | Edf | | 1.000 | **2.073** | 2.773 | 1.000 | 1.967 |
| *F*−value | | 1.215 | 5.559 | 3.687 | 1.079 | 3.573 |
| p value | | 0.292 | \* | 0.067 | 0.319 | 0.075 |
| D.E (%) | | 9.2 | 55.1 | 53.9 | 8.25 | 43.4 |
| Adj. R2 | | 0.016 | 0.466 | 0.414 | 0.006 | 0.333 |
|  | k | | − | 5 | − | − | − |
| Microplásticos | Edf | | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| *F*−value | | 0.298 | 0.215 | 0.033 | 0.107 | 0.614 |
| p value | | 0.595 | 0.651 | 0.859 | 0.749 | 0.448 |
| D.E (%) | | 2.42 | 1.76 | 0.275 | 0.887 | 4.87 |
| Adj. R2 | | −0.057 | −0.064 | −0.080 | −0.074 | −0.031 |
|  | k | | − | − | − | − | − |

\*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001



**MSF 4.** Representación gráfica de los modelos aditivos generalizados univariados (GAM) para la especie *Stellifer melanocheir* n = 14, donde se evaluó la variación del consumo. **A.** Crustáceos. **B.** Detritos.

SMF 4. Graphical representation of univariate generalized additive models (GAM) for the species Stellifer melanocheir n = 14, where consumption variation was assessed. **A.** Crustaceans. **B.** Detritus.