

**Table S1.** Taxa checklist of riparian vegetation, aquatic macroinvertebrates and birds recorded between 2015 and 2018 in the study area.

<b>Riparian vegetation</b>	<b>Birds</b>	<b>Aquatic macroinvertebrates (families)</b>
<i>Agave americana</i>	<i>Acrocephalus scirpaceus</i>	Aeshnidae
<i>Agrostis stolonifera</i>	<i>Aegithalos caudatus</i>	Ancylidae
<i>Anthyllis cytisoides</i>	<i>Alcedo atthis</i>	Anthomyiidae
<i>Apium graveolens</i>	<i>Anas platyrhynchos</i>	Athericidae
<i>Apium nodiflorum</i>	<i>Ardea cinerea</i>	Atyidae
<i>Arbutus unedo</i>	<i>Caprimulgus ruficollis</i>	Baetidae
<i>Arundo donax</i>	<i>Carduelis cannabina</i>	Brachycentridae
<i>Artemisia campestris</i>	<i>Carduelis carduelis</i>	Caenidae
<i>Asparagus acutifolius</i>	<i>Carduelis chloris</i>	Calopterygidae
<i>Asparagus albus</i>	<i>Certhia brachydactyla</i>	Cambaridae
<i>Asparagus horridus</i>	<i>Cettia cetti</i>	Ceratopogonidae
<i>Asparagus officinalis</i>	<i>Cisticola juncidis</i>	Chironomidae
<i>Atriplex halimus</i>	<i>Columba livia domestica</i>	Coenagrionidae
<i>Ballota hirsuta</i>	<i>Columba palumbus</i>	Corbiculidae
<i>Brachypodium retusum</i>	<i>Cuculus canorus</i>	Corduliidae
<i>Bryonia dioica</i>	<i>Cyanistes caeruleus</i>	Corixidae
<i>Carpobrotus edulis</i>	<i>Dendrocopos major</i>	Culicidae
<i>Carex pendula</i>	<i>Emberiza cia</i>	Curculionidae
<i>Celtis australis</i>	<i>Emberiza cirius</i>	Dixidae
<i>Cistus albidus</i>	<i>Erithacus rubecula</i>	Dolychopodidae
<i>Cistus clusii</i>	<i>Falco tinnunculus</i>	Dryopidae
<i>Cistus monspeliensis</i>	<i>Ficedula hypoleuca</i>	Dugesiidae
<i>Cladium mariscus</i>	<i>Fringilla coelebs</i>	Dytiscidae
<i>Clematis vitalba</i>	<i>Galerida cristata</i>	Elmidae
<i>Coriaria myrtifolia</i>	<i>Gallinula chloropus</i>	Empididae
<i>Crataegus monogyna</i>	<i>Hippolais opaca</i>	Ephemerellidae
<i>Cyperus fuscus</i>	<i>Hippolais polyglotta</i>	Ephemeridae
<i>Cyperus longus</i>	<i>Jynx torquilla</i>	Ephydriidae
<i>Cynanchum acutum</i>	<i>Lanius senator</i>	Erpobdellidae
<i>Daphne gnidium</i>	<i>Lophophanes cristatus</i>	Gammaridae
<i>Desmazeria rigida</i>	<i>Loxia curvirostra</i>	Gerridae
<i>Digitalis obscura</i>	<i>Luscinia megarhynchos</i>	Glossiphoniidae
<i>Dittrichia viscosa</i>	<i>Merops apiaster</i>	Glossosomatidae
<i>Dorycnium pentaphyllum</i>	<i>Motacilla alba</i>	Gomphidae
<i>Dorycnium rectum</i>	<i>Motacilla cinerea</i>	Gyrinidae
<i>Equisetum ramosissimum</i>	<i>Muscicapa striata</i>	Haliplidae
<i>Eleagnos angustifolia</i>	<i>Nycticorax nycticorax</i>	Helophoridae
<i>Elymus hispidus</i>	<i>Oenanthe leucura</i>	Heptagenidae

<b>Riparian vegetation</b>	<b>Birds</b>	<b>Aquatic macroinvertebrates (families)</b>
<i>Ficus carica</i>	<i>Oriolus oriolus</i>	Hydracarina
<i>Fraxinus angustifolia</i>	<i>Parus major</i>	Hydraenidae
<i>Fraxinus excelsior</i>	<i>Passer domesticus</i>	Hydrobiidae
<i>Genista_scorpis</i>	<i>Passer montanus</i>	Hydrometridae
<i>Genista spartioides</i>	<i>Periparus ater</i>	Hydrophilidae
<i>Hedera helix</i>	<i>Petronia petronia</i>	Hydropsychidae
<i>Helychrisum stoechas</i>	<i>Phalacrocorax carbo</i>	Hydroptilidae
<i>Imperata cylindrica</i>	<i>Phylloscopus collybita</i>	Leptoceridae
<i>Iris pseudacorus</i>	<i>Phylloscopus trochilus</i>	Leptophlebiidae
<i>Juglans regia</i>	<i>Pica pica</i>	Leuctridae
<i>Juncus acutus</i>	<i>Picus viridis</i>	Libellulidae
<i>Juncus articulatus</i>	<i>Regulus ignicapilla</i>	Limnephilidae
<i>Juncus inflexus</i>	<i>Remiz pendulinus</i>	Limoniidae
<i>Juncus maritimus</i>	<i>Saxicola rubicola</i>	Lymnaeidae
<i>Juniperus oxycedrus</i>	<i>Serinus serinus</i>	Melanopsidae
<i>Juniperus phoenicea</i>	<i>Streptopelia decaocto</i>	Nepidae
<i>Laurus nobilis</i>	<i>Streptopelia turtur</i>	Neritidae
<i>Lonicera biflora</i>	<i>Sturnus unicolor</i>	Notonectidae
<i>Lonicera_implexa</i>	<i>Sylvia atricapilla</i>	Oligochaeta
<i>Lonicera sp</i>	<i>Sylvia borin</i>	Oligoneuriidae
<i>Lygeum spartum</i>	<i>Sylvia hortensis</i>	Ostracoda
<i>Lysimachia ephemerum</i>	<i>Sylvia melanocephala</i>	Perlodidae
<i>Marrubium vulgare</i>	<i>Troglodytes troglodytes</i>	Philopotamidae
<i>Mentha suaveolens</i>	<i>Turdus merula</i>	Physidae
<i>Mespilus germanica</i>	<i>Turdus viscivorus</i>	Planariidae
<i>Morus alba</i>	<i>Upupa epops</i>	Planorbidae
<i>Nasturtium officinale</i>		Platycnemididae
<i>Nerium oleander</i>		Polycentropodidae
<i>Nicotiana glauca</i>		Polymitarcidae
<i>Olea europaea</i>		Potamanthidae
<i>Opuntia maxima</i>		Prosopistomatidae
<i>Osyris lanceolata</i>		Psychomyiidae
<i>Osyris quadripartita</i>		Rhyacophilidae
<i>Phlomis_lychnitis</i>		Scirtidae
<i>Phyllirea angustifolia</i>		Simuliidae
<i>Phragmites australis</i>		Sphaeriidae
<i>Pinus halepensis</i>		Tabanidae
<i>Pinus pinea</i>		Tipulidae
<i>Pistacia lentiscus</i>		Veliidae
<i>Platanus_hispanica</i>		
<i>Populus alba</i>		

<b>Riparian vegetation</b>	<b>Birds</b>	<b>Aquatic macroinvertebrates (Coleoptera)</b>
<i>Populus deltoides</i>		<i>Agabus biguttatus</i>
<i>Populus nigra</i>		<i>Agabus ramblae</i>
<i>Potentilla reptans</i>		<i>Aulonogyrus striatus</i>
<i>Prunus domestica</i>		<i>Coelostoma hispanicum</i>
<i>Prunus dulcis</i>		<i>Cyphon</i> sp.
<i>Prunus persica</i>		<i>Dryops gracilis</i>
<i>Punica granatum</i>		<i>Elmis maugetii</i>
<i>Pyrus communis</i>		<i>Enochrus ater</i>
<i>Quercus coccifera</i>		<i>Esolus pygmaeus</i>
<i>Quercus rotundifolia</i>		<i>Gyrinus distinctus</i>
<i>Retama sphaerocarpa</i>		<i>Helochaeres lividus</i>
<i>Rhamnus alaternus</i>		<i>Helophorus</i> sp.
<i>Rhamnus lycioides</i>		<i>Hydraena cf hernandoi</i>
<i>Robinia pseudoacacia</i>		<i>Hydroglyphus geminus</i>
<i>Rosa canina</i>		<i>Hydrophylus pistaceus</i>
<i>Rosmarinus officinalis</i>		<i>Laccophilus hyalinus</i>
<i>Rubia peregrina</i>		<i>Limnius intermedius</i>
<i>Rubus caesius</i>		<i>Normandia nitens</i>
<i>Rubus ulmifolius</i>		<i>Ochthebius viridis fallaciosus</i>
<i>Ruscus aculeatus</i>		<i>Orectochilus villosus</i>
<i>Saccharum ravennae</i>		<i>Oulimnius troglodytes</i>
<i>Salix alba</i>		<i>Pomatinus substriatus</i>
<i>Salix atrocinerea</i>		<i>Potamophylus acuminatus</i>
<i>Salix eleagnos</i>		<i>Ranthus suturalis</i>
<i>Salix fragilis</i>		
<i>Salix neotricha</i>		
<i>Salix purpurea</i>		
<i>Sambucus nigra</i>		
<i>Samolus valerandi</i>		
<i>Satureja intricata</i>		
<i>Scirpus holoschoenus</i>		
<i>Scirpus maritimus</i>		
<i>Sedum sediforme</i>		
<i>Smilax aspera</i>		
<i>Sorghum halepense</i>		
<i>Stipa tenacissima</i>		
<i>Suaeda vera</i>		
<i>Tamarix boveana</i>		
<i>Tamarix gallica</i>		
<i>Teucrium capitatum</i>		
<i>Thalictrum speciosissimum</i>		

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<b>Riparian vegetation</b>	<b>Birds</b>	<b>Aquatic macroinvertebrates (Hemiptera)</b>
<i>Thymus vulgaris</i>		<i>Aquarius cinereus</i>
<i>Typha dominguensis</i>		<i>Aquarius najas</i>
<i>Ulmus minor</i>		<i>Gerris argentatus</i>
<i>Veronica anagallis-aquatica</i>		<i>Gerris thoracicus</i>
<i>Vitex agnus-castus</i>		<i>Heliocorisa vermiculata</i>
<i>Vitis vinifera</i>		<i>Hydrometra stagnorum</i>
<i>Washingtonia robusta</i>		<i>Micronecta minuscula</i>
<i>Ziziphus_zizyphus</i>		<i>Micronecta scholtzi</i>
<i>Zygophyllum fabago</i>		<i>Velia caprai caprai</i>

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**Table S2.** Mean values and the standard deviation for riparian vegetation, birds and aquatic invertebrate indexes through time (2015-2018) and between treatments (reference, intensive-monthly and extensive- quarterly mowing).

Date	Treatment	<i>A. donax</i> density (stems/m <sup>2</sup> )	<i>A. donax</i> height (m)	Riparian plant richness	Native cover (%)	Exotic cover (%)	Riparian Quality (RQI)	Bird density (birds/ha)	Kilometric abundance (birds/km)	Bird species richness	Invert. Quality (IBMWP)	Invert. Family richness	Coleoptera richness	Hemiptera richness
2015	Extensive	26.2 ± 7.7	3.8 ± 0.6	15.3 ± 6.7	46.9 ± 21.9	61.3 ± 24	51.9 ± 13.2	57.4 ± 9.8	115.8 ± 27.4	16 ± 4	79.7 ± 7.6	17 ± 2	2.7 ± 2.3	1 ± 1
2015	Intensive	24.4 ± 6.5	3.5 ± 1.2	11 ± 3.3	31.3 ± 22.2	71.9 ± 25.3	42 ± 15.4	84.4 ± 39.9	131.6 ± 54.1	15.3 ± 4.2	82.7 ± 17.2	18 ± 2.7	2.3 ± 1.5	1.7 ± 1
2015	Reference	2 ± 2	1.5 ± 0.9	31.2 ± 8.5	93 ± 7.6	6 ± 5.5	82.2 ± 7.6	115.5 ± 21.4	303 ± 110	22.7 ± 4	114.8 ± 47.1	22.3 ± 8.5	2.5 ± 1.9	0.5 ± 1
2016	Extensive	15.2 ± 9.7	0.6 ± 0.4	18.5 ± 3.3	46.9 ± 20.2	60 ± 20.2	46 ± 12.2	68.4 ± 29.6	137.7 ± 60.1	17.2 ± 5.7	60 ± 20.7	14.3 ± 3.2	3.3 ± 1.2	0.7 ± 0.6
2016	Intensive	23.3 ± 6	0.9 ± 0.5	17.3 ± 6.3	31.3 ± 23.9	71.3 ± 21.8	39.6 ± 12.5	60.3 ± 33.1	95.4 ± 40.8	13.9 ± 3.8	74.8 ± 19.4	16.3 ± 3.7	2.3 ± 1.6	0.8 ± 1
2016	Reference	2.5 ± 2.5	1.4 ± 1.3	31.4 ± 8.1	95 ± 6.1	4 ± 4.2	83.8 ± 5	129.8 ± 66.4	297.6 ± 125.6	19 ± 1	100.3 ± 39.7	19.5 ± 7	3.8 ± 3.9	1.3 ± 1.9
2017	Extensive	23.2 ± 13.1	1.2 ± 0.5	25.5 ± 6.9	44.4 ± 24.7	58.1 ± 22.8	52.1 ± 15.4	86.5 ± 62.1	165.2 ± 94.6	18.7 ± 4.6	86.3 ± 33.1	20.3 ± 4.7	3.3 ± 2.5	3.3 ± 0.6
2017	Intensive	26.2 ± 10.9	0.9 ± 0.5	22.4 ± 7.6	37.5 ± 18.7	59.4 ± 19.9	46.1 ± 12.4	63.2 ± 27.7	100.4 ± 27.5	15.1 ± 3.4	96.7 ± 28.8	20.3 ± 6.2	2.5 ± 1.9	2.2 ± 1.3
2017	Reference	3.1 ± 2.7	1.7 ± 1.2	33.4 ± 6.6	94 ± 4.2	6 ± 4.2	83.2 ± 3.7	172 ± 44.4	418 ± 101.7	26.3 ± 3.1	141.5 ± 44.4	28 ± 6.8	6 ± 4.3	2.8 ± 1
2018	Extensive	14.3 ± 4.7	0.4 ± 0.1	23.4 ± 6.9	41.3 ± 24.2	55.6 ± 23.2	50.6 ± 17.2	73.6 ± 24.1	146.9 ± 44.5	20.3 ± 3.6	91.7 ± 38.8	20 ± 5.6	3.7 ± 2.1	1.7 ± 1.2
2018	Intensive	24.1 ± 13.4	0.5 ± 0.3	22.9 ± 8.9	38.8 ± 19.6	50.6 ± 25.4	46.5 ± 16.4	50.5 ± 19.8	85.1 ± 37.8	13.9 ± 4.2	112.3 ± 26.8	21 ± 4.6	2.2 ± 1.2	2.7 ± 1
2018	Reference	3.6 ± 3.2	2.1 ± 1.3	34.2 ± 6.6	91 ± 7.4	8 ± 7.6	82.8 ± 3.8	122.9 ± 45	289.7 ± 67.8	17.7 ± 4	138 ± 53.3	24.5 ± 9	3.8 ± 2.2	2.5 ± 1

**Table S3.** Results of Tukey post-hoc paired comparisons for riparian vegetation variables between years for restored sites.

	Riparian richness			Riparian Quality Index			<i>A. donax</i> stem density			<i>A. donax</i> height			<i>A. donax</i> cover		
	Estimate	Z-value	P-value	Estimate	Z-value	P-value	Estimate	Z-value	P-value	Estimate	Z-value	P-value	Estimate	Z-value	P-value
<b>2016 – 2015</b>	47.500	4.232	<b>&lt;0.001</b>	-41.250	-1.931	0.2150	-0.375320	-2.574	<b>0.0492</b>	-29.563	-14.811	<b>&lt;0.001</b>	-0.9375	-0.228	0.99582
<b>2017 – 2015</b>	108.125	9.634	<b>&lt;0.001</b>	21.875	1.024	0.7353	-0.091882	-0.630	0.9224	-26.500	-13.277	<b>&lt;0.001</b>	-78.125	-1.901	0.22782
<b>2018 – 2015</b>	100.000	8.910	<b>&lt;0.001</b>	16.250	0.761	0.8721	-0.373548	-2.562	<b>0.0498</b>	-31.894	-15.979	<b>&lt;0.001</b>	-134.375	-3.269	<b>0.00572</b>
<b>2017 – 2016</b>	60.625	5.402	<b>&lt;0.001</b>	63.125	2.955	<b>0.0165</b>	0.283438	1.944	0.2097	0.3062	1.534	0.4168	-68.750	-1.672	0.33828
<b>2018 – 2016</b>	52.500	4.678	<b>&lt;0.001</b>	57.500	2.692	<b>0.0354</b>	0.001773	0.012	10.000	-0.2331	-1.168	0.6471	-125.000	-3.041	<b>0.01275</b>
<b>2018 – 2017</b>	-0.8125	-0.724	0.8875	-0.5625	-0.263	0.9936	-0.281666	-1.932	0.2146	-0.5394	-2.702	<b>0.0349</b>	-56.250	-1.368	0.51928

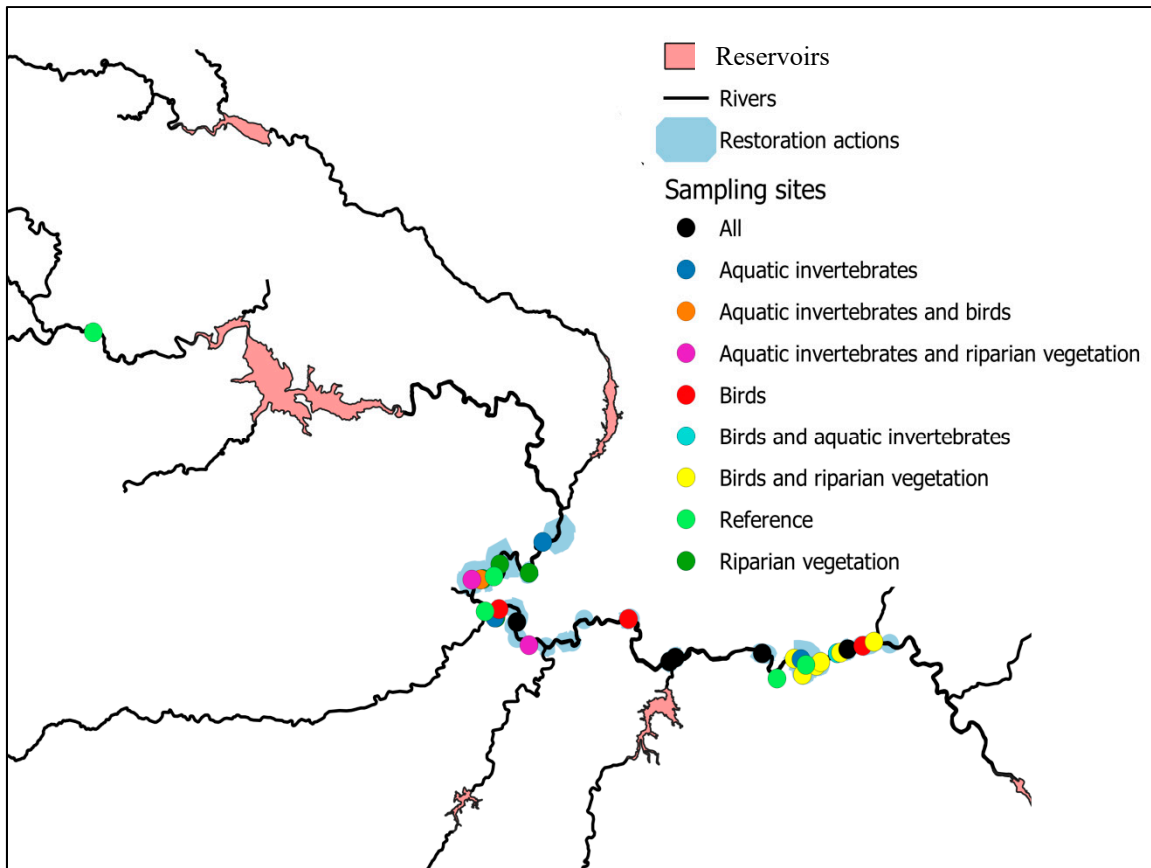
**Table S4.** Results of Tukey post-hoc paired comparisons for aquatic macroinvertebrate-related variables between years for restored sites.

	IBMWP			Family richness			Hemiptera species richness		
	Estimate	Z-value	P-value	Estimate	Z-value	P-value	Estimate	Z-value	P-value
<b>2016 – 2015</b>	-11.778	-1.541	0.41318	-20.000	-1.372	0.51700	-0.6667	-1.691	0.3282
<b>2017 – 2015</b>	11.556	1.512	0.43047	26.667	1.829	0.25942	11.111	2.819	<b>0.0246</b>
<b>2018 – 2015</b>	23.778	3.110	<b>0.00998</b>	30.000	2.058	0.16705	0.8889	2.255	0.1085
<b>2017 – 2016</b>	23.333	3.052	<b>0.01231</b>	46.667	3.201	<b>0.00722</b>	17.778	4.510	<b>&lt;0.001</b>
<b>2018 – 2016</b>	35.556	4.651	<b>&lt;0.001</b>	50.000	3.430	<b>0.00343</b>	15.556	3.947	<b>&lt;0.001</b>
<b>2018 – 2017</b>	12.222	1.599	0.37932	0.3333	0.229	0.99579	-0.2222	-0.564	0.9428

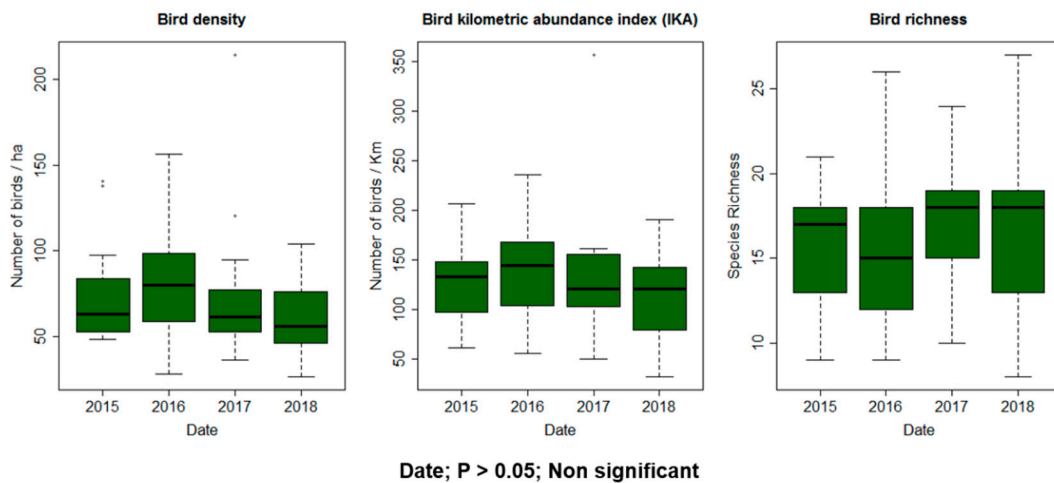
**Table S5.** Results of linear mixed-effect models (LMEs) comparing the evolution of riparian vegetation, aquatic macroinvertebrate and bird community metrics (response variables) between reference and restoration sites (treatments).  $R^2$  ( $R^2m$ ) and  $p$ -values for the whole model (likelihood ratio test) and the different terms (year, treatment and the interaction between them) are shown. The signs or trends of the relationships are also displayed. Significant results ( $p < 0.05$ ) have been highlighted in bold. Note that intensive and extensive treatments were individually considered only for those variables differentially responsive to intensive and extensive treatments in previous LMEs (i.e., bird variables).

Response variable	Model		Year		Treatment		Year: Treatment	
	$P$ – value	$R^2m$	$P$ – value	Trend	$P$ – value	Trend (greater value)	$P$ – value	Trend
<b>Riparian vegetation</b>								
Species richness	<b><math>1.9 \times 10^{-15}</math></b>	<b>0.51</b>	<b><math>3.5 \times 10^{-7}</math></b>	+/=	<b><math>4.7 \times 10^{-4}</math></b>	Ref <sup>1</sup>	<b>0.004</b>	Rest(+), Ref(=)
Riparian Quality	<b><math>2 \times 10^{-5}</math></b>	<b>0.59</b>	0.53	=	<b><math>1.2 \times 10^{-5}</math></b>	Ref <sup>1</sup>	0.3	=
Native cover	<b>0.001</b>	<b>0.57</b>	0.97	=	<b><math>6.7 \times 10^{-6}</math></b>	Ref <sup>1</sup>	0.95	=
<i>A. donax</i> stem density	<b><math>7.3 \times 10^{-8}</math></b>	<b>0.69</b>	0.4	=	<b><math>7.3 \times 10^{-8}</math></b>	Ref <sup>1</sup>	0.09	=
<i>A. donax</i> height	<b><math>2.2 \times 10^{-16}</math></b>	<b>0.7</b>	<b><math>6.4 \times 10^{-10}</math></b>	+/-	0.56	=	<b><math>1.1 \times 10^{-12}</math></b>	Ref(+), Rest(-),
<i>A. donax</i> cover	<b><math>1.8 \times 10^{-6}</math></b>	<b>0.59</b>	0.45	=	<b><math>9.8 \times 10^{-6}</math></b>	Rest <sup>2</sup>	0.12	=
<b>Aquatic macroinvertebrates</b>								
IBMWP score	<b><math>1.4 \times 10^{-7}</math></b>	<b>0.35</b>	<b><math>1.3 \times 10^{-6}</math></b>	+	<b>0.045</b>	Ref <sup>1</sup>	0.65	=
Family richness	<b><math>1.1 \times 10^{-5}</math></b>	<b>0.29</b>	<b><math>2 \times 10^{-5}</math></b>	+	0.09	=	0.64	=
Coleoptera richness	0.12	-	0.051	=	0.48	=	0.72	=
Hemiptera richness	<b><math>4.7 \times 10^{-7}</math></b>	<b>0.39</b>	<b><math>1.4 \times 10^{-6}</math></b>	+	0.75	=	0.33	=
<b>Birds</b>								
Species richness	<b><math>3.3 \times 10^{-4}</math></b>	<b>0.38</b>	<b>0.017</b>	+/-	<b>0.024</b>	Ref <sup>1</sup>	<b>0.009</b>	Ext <sup>3</sup> (+), Ref(-)
Density*	<b>0.004</b>	<b>0.35</b>	0.17	=	<b>0.028</b>	Ref <sup>1</sup>	0.053	=
Abundance*	<b><math>2.1 \times 10^{-4}</math></b>	<b>0.55</b>	0.14	=	<b><math>9 \times 10^{-4}</math></b>	Ref <sup>1</sup>	0.067	=

<sup>1</sup> Ref: Reference sites; <sup>2</sup>Rest: Restoration sites; <sup>3</sup>Ext: Extensive maintenance. \*



**Figure S1.** Restored river reaches along Segura River and sampling sites (reference and restoration sites) to monitor the evolution of aquatic macroinvertebrates, birds and riparian vegetation. Dams are also shown.



**Figure S2.** Boxplots showing the temporal evolution of bird density, abundance and species richness. The median is denoted by the bold horizontal line, the box delimits the interquartile range, and the whisker lines extend to the observed maxima and minima, except for the outliers symbolized by points.

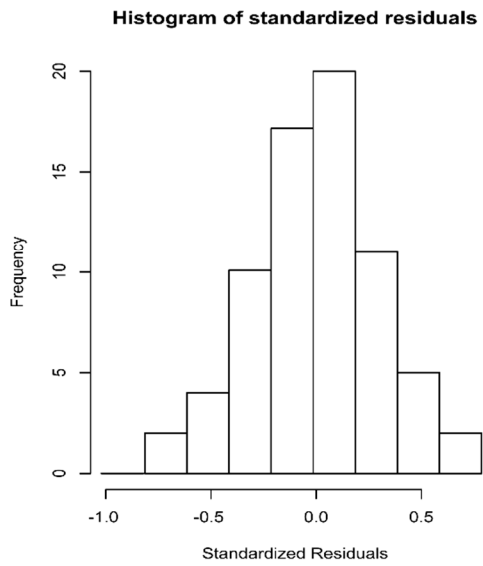
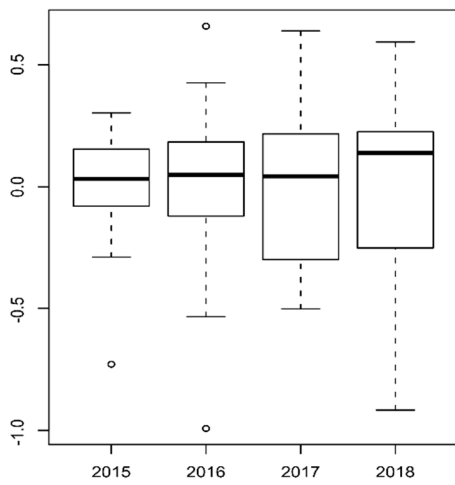
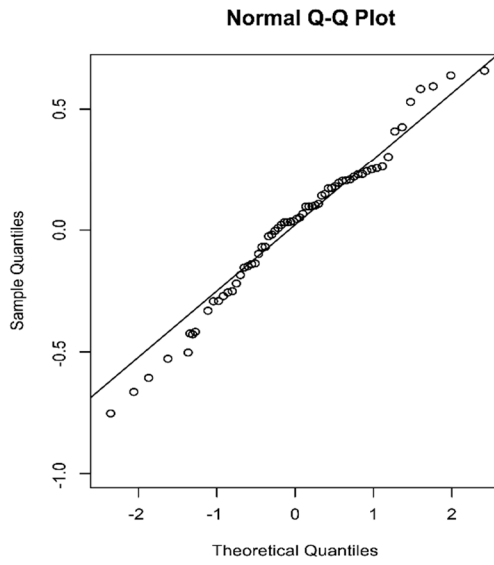
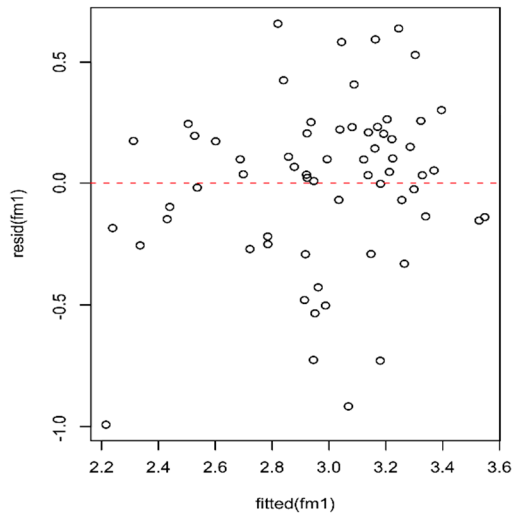


Levene's Test for Homogeneity of Variance

F-value = 1.2024  $p = 0.3167$

Shapiro-Wilk normality test

$W = 0.97558$ ,  $p\text{-value} = 0.1257$



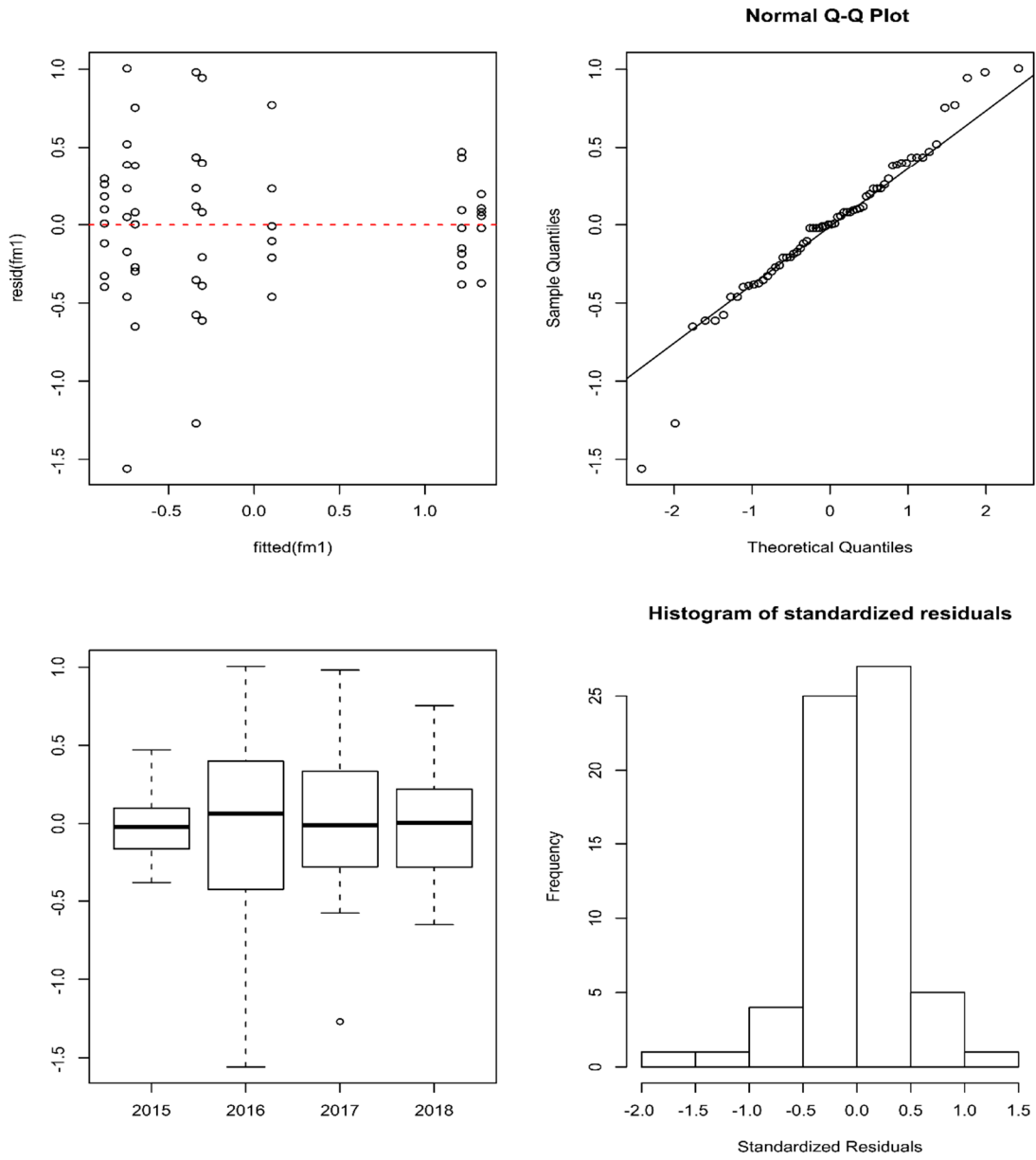
**Figure S3.** Diagnostic plots to check residual's normality and homoscedasticity assumptions for *A. donax* density model, including the results of Shapiro-Wilk and Levene's tests.

Levene's Test for Homogeneity of Variance

F-value = 1.9579  $p = 0.13$

Shapiro-Wilk normality test

W = 0.97158, p-value = 0.0567



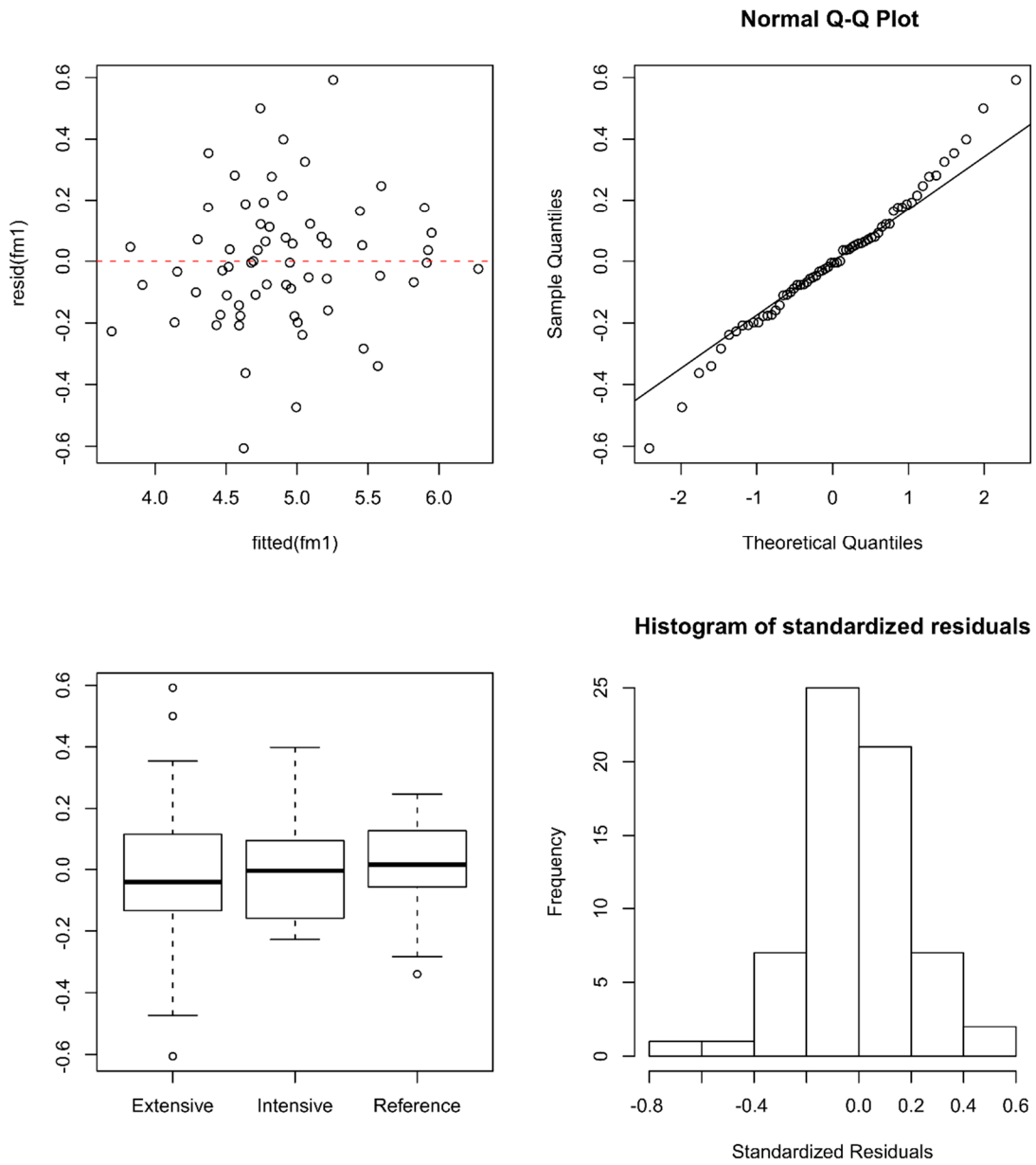
**Figure S4.** Diagnostic plots to check residual's normality and homoscedasticity assumptions for *A. donax* height, including the results of Shapiro-Wilk and Levene's tests.

Levene's Test for Homogeneity of Variance

F-value = 1.462  $p = 0.2397$

Shapiro-Wilk normality test

W = 0.99149,  $p$ -value = 0.94



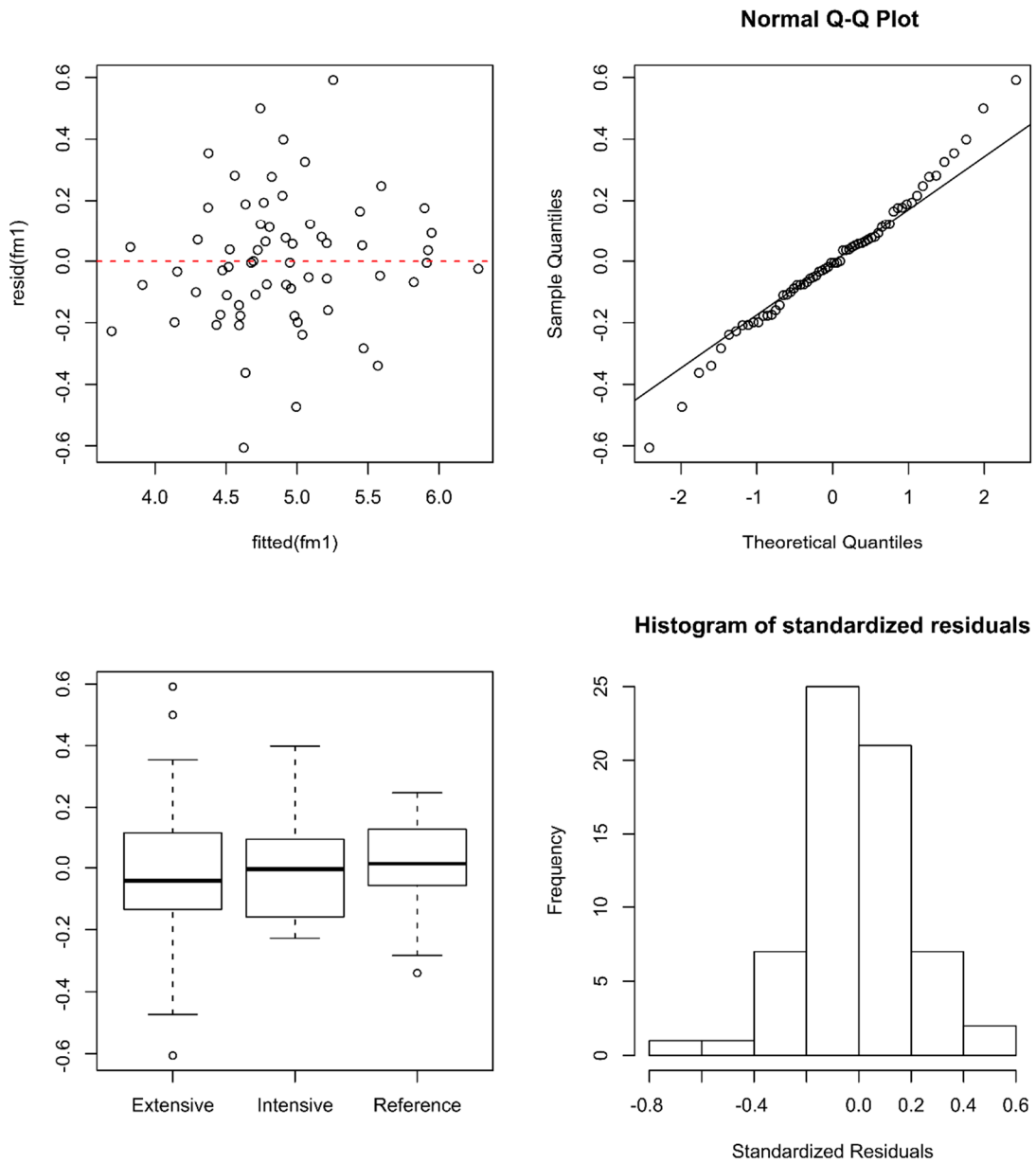
**Figure S5.** Diagnostic plots to check residual's normality and homoscedasticity assumptions for bird density, including the results of Shapiro-Wilk and Levene's tests.

Levene's Test for Homogeneity of Variance

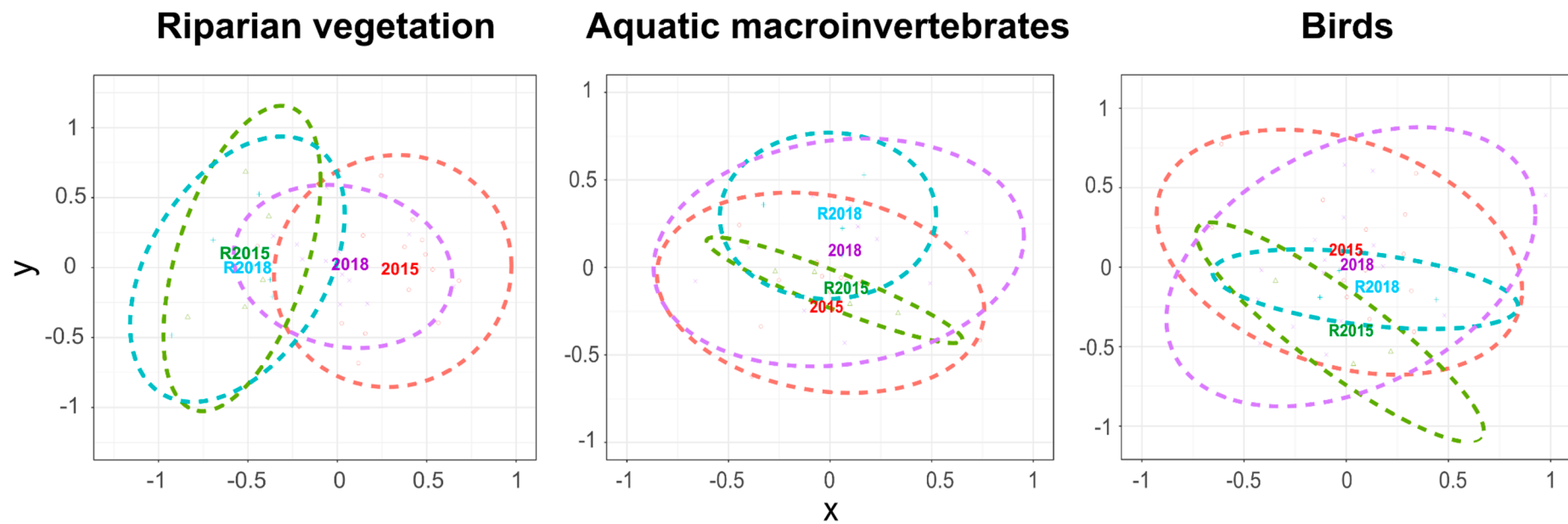
F-value = 2.2799  $p = 0.1109$

Shapiro-Wilk normality test

$W = 0.98658$ ,  $p\text{-value} = 0.7157$



**Figure S6.** Diagnostic plots to check residual's normality and homoscedasticity assumptions for bird abundance, including the results of Shapiro-Wilk and Levene's tests.



**Figure S7.** Non-metric Multidimensional Scaling (NMDS) comparing taxonomic composition before the beginning of restoration actions (2015-red) and the current situation (2018-purple) in comparison with reference sites in both periods (R2015-green and R2018-blue, respectively) for riparian vegetation (on the left), aquatic macroinvertebrates (center), bird communities (right plot). Ellipses group communities located at the centroid of the community.