Supplementary Online Material 5

Protected and unprotected wetlands

This supplementary material presents the analysis of the wetlands map in the protected areas.

Protected areas and wetlands in the study area

To estimate the extent of protected wetlands within the study area, we considered four categories of protected areas: Indigenous territories, State Conservation Units, Federal Conservation Units, and Ramsar Sites. In cases of overlapping designations, each area was assigned to a single category. Table S1 presents that the majority of wetlands are located within Indigenous Territories (29.3 Mha). In contrast, Ramsar Sites, areas designated for the conservation of wetland environments, account for only 6.1 Mha as newly established conservation areas. 72 Mha could potentially be defined as new areas for the protection and preservation of wetlands.

Table S1. Wetland in the protected areas.

Category	Protected areas	Area (Mha)
Wetland in protected areas	Indigenous Territories	29.3
	State Conservation Units	12.9
	Federal Conservation Units	10.0
	Bosques*	0.02
	Ramsar Sites	6.1
	Overlapping protected areas (without Ramsar Sites)	4.8
	Overlapping protected areas (with Ramsar Sites)	16.6
Wetland in no protected areas	-	72.0

*Bosques is a class of protected area in Ecuador that was not included formally in the analysis, given its small extent relative to the other types of protected areas..

Table S2 summarizes the extent of protected areas within each wetland class, categorized by type of protection and indicating any overlaps between protection categories.

Table S2. Wetland in the protected areas by class map.

Class	Category protected areas	Area (Mha)
Tidal Flat	Unprotected	0.05
	Overlapping	0.00
	Overlapping-Ramsar	0.06
	Ramsar	0.00
	Indigenous Territories	0.02
	State Conservation Units	0.01
	Federal Conservation Units	0.02
Salt Marsh	Unprotected	0.05
	Overlapping	0.00
	Overlapping-Ramsar	0.05
	Ramsar	0.00
	Indigenous Territories	0.00
	State Conservation Units	0.02
	Federal Conservation Units	0.00
Mangrove	Unprotected	0.19
	Overlapping	0.02

	Overlapping-Ramsar	0.80
	Ramsar	0.11
	Indigenous Territories	0.16
	State Conservation Units	0.02
	Federal Conservation Units	0.09
Glacier	Unprotected	0.06
	Overlapping	0.01
	Indigenous Territories	0.06
	State Conservation Units	0.02
	Federal Conservation Units	0.04
Open Water	Bosques	0.00
	Unprotected	8.84
	Overlapping	0.20
	Overlapping-Ramsar	1.51
	Ramsar	0.62
	Indigenous Territories	1.16
	State Conservation Units	1.34
	Federal Conservation Units	0.45
Lowland Herbaceous Floodplain	Bosques	0.00
	Unprotected	15.34
	Overlapping	0.62

	Overlapping-Ramsar	3.10
	Ramsar	1.19
	Indigenous Territories	4.84
	State Conservation Units	3.43
	Federal Conservation Units	1.13
Highland Herbaceous Floodplain	Bosques	0.01
	Unprotected	0.21
	Overlapping	0.01
	Overlapping-Ramsar	0.04
	Ramsar	0.00
	Indigenous Territories	0.15
	State Conservation Units	0.01
	Federal Conservation Units	0.03
Shrub Floodplain	Bosques	0.00
	Unprotected	9.25
	Overlapping	0.47
	Overlapping-Ramsar	1.45
	Ramsar	0.44
	Indigenous Territories	2.80
	State Conservation Units	1.36

	Federal Conservation Units	0.88
Forest Floodplain	Bosques	0.01
	Unprotected	37.97
	Overlapping	3.45
	Overlapping-Ramsar	9.60
	Ramsar	3.78
	Indigenous Territories	20.14
	State Conservation Units	6.71
	Federal Conservation Units	7.34