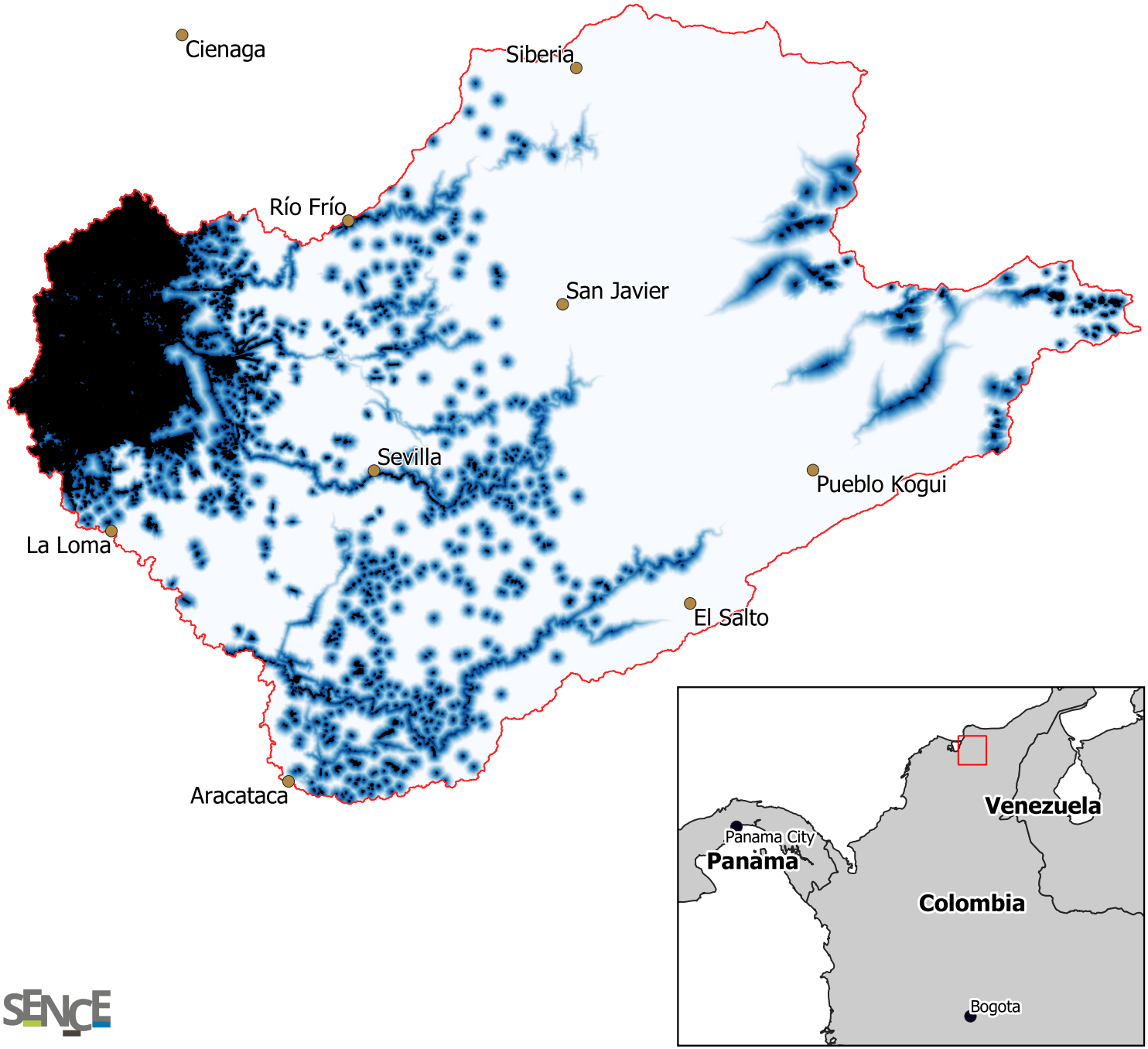
9. Ecological Network Connectivity - Wetland Ecosystem

Ecosystem service: Population maintenance & genetic diversity.



How to interpret the map:
Darker blue areas are more highly connected to the ecological network. Black areas are existing source habitats, comprising the wetland, mangrove and waterbody habitats (except artificial waterbodies).

What the service is:
The map shows the existing wetland network within which plant and animal species can move to maintain genetic diversity and sustain viable populations of wetland species. Existing wetlands act as 'source habitat', where the main population of wetland species is based. Land adjoining and close to the source habitats can be used for foraging and as dispersal routes (permeable habitats). Some habitats and land uses are more permeable than others; for example rivers could be expected to provide suitable conditions for many wetland species, whereas terrestrial habitats are less suitable.

Why it is important:
Areas of native natural and semi-natural wetlands that are connected in a landscape, are more resilient to changing climate or land management. Inside the network, wetlands with low chemical and nutrient levels, and structurally-diverse and species-rich emergent vegetation, generally provide a higher level of ecosystem services, such as clean freshwaters, erosion control, and nursery fisheries. Within the network, restoration of structurally-diverse and species-rich emergent vegetation will be far more effective as propagules, pollinators and important species will be available for colonisation.

How the map was created:
The habitat classes were generated using Sentinel 1 and Sentinel 2 satellite imagery. Each habitat and land use was evaluated for its importance and role played in supporting the wetland network.

Legend

Source wetland

Wetland ecological network
- Highly connected
- Moderately connected
- Poorly connected

0 5 10 15 20 km

N

Data and maps created by Environment Systems Ltd (2019)
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