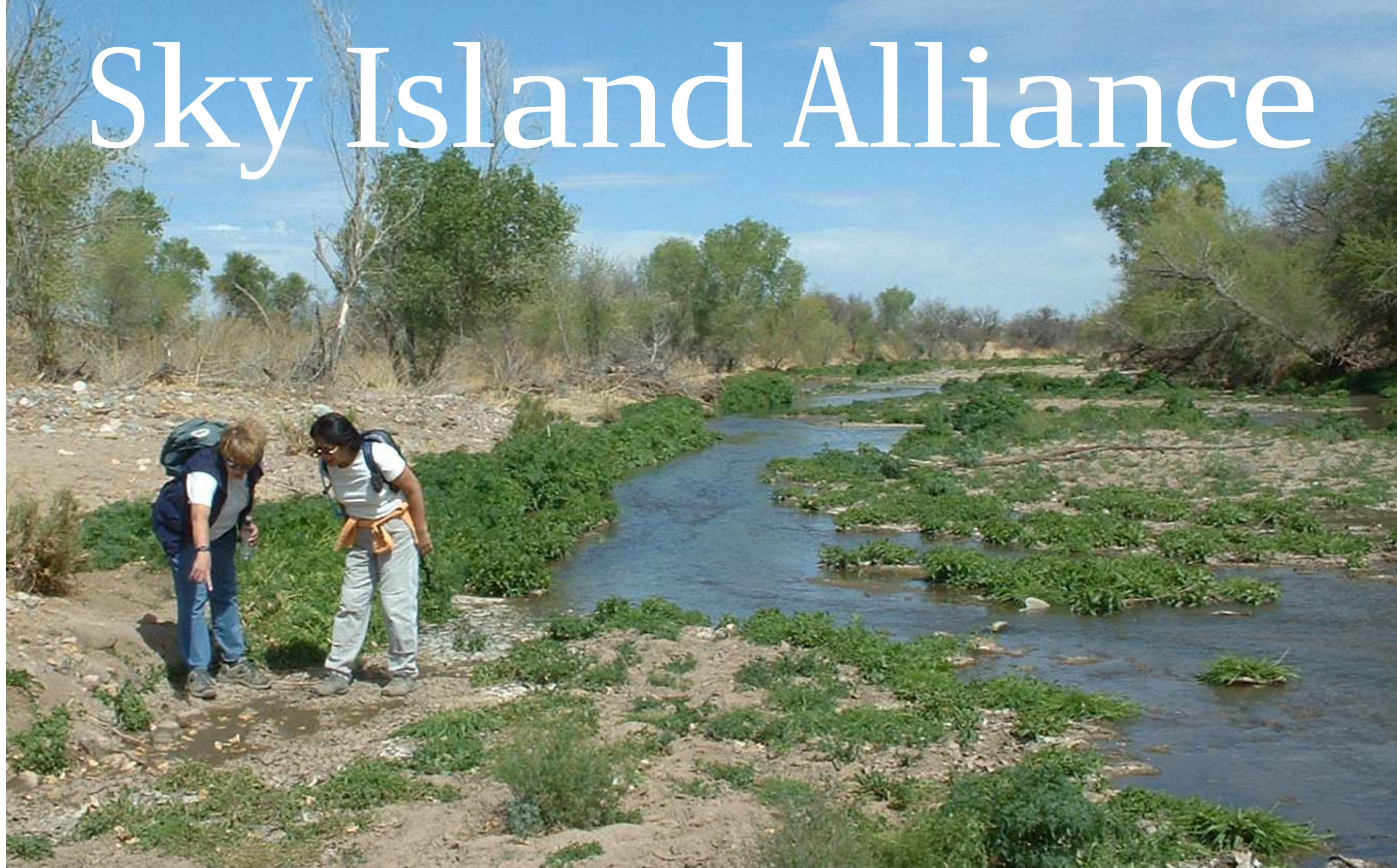




Tracking along the Santa Cruz River on Tucson Audubon's Esperaza conservation property.

Wildlife Linkages Program

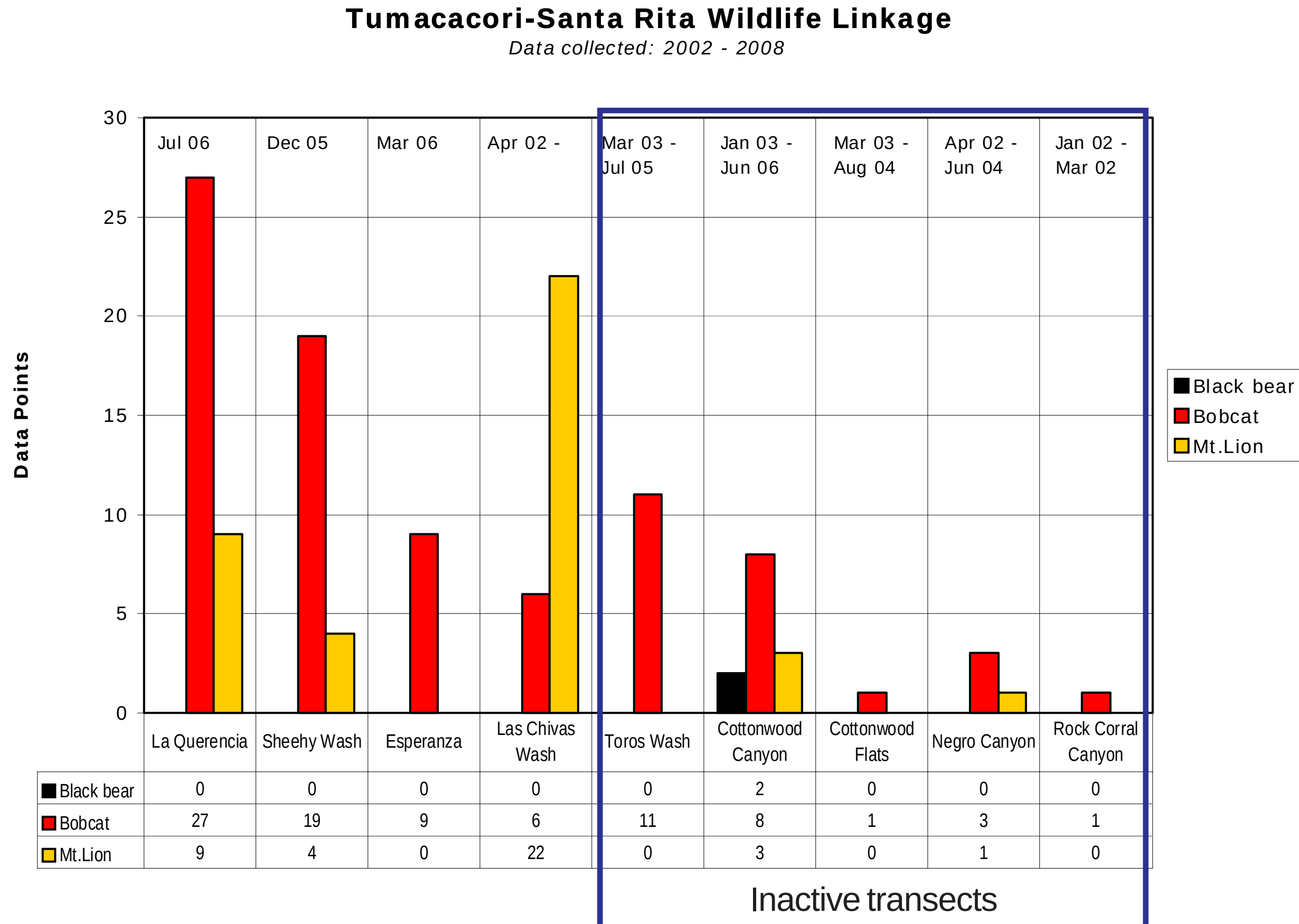
Connecting volunteer effort to conservation action.



Volunteers documenting tracks on La Querencia transect.



Bobcat tracks on Esperaza.

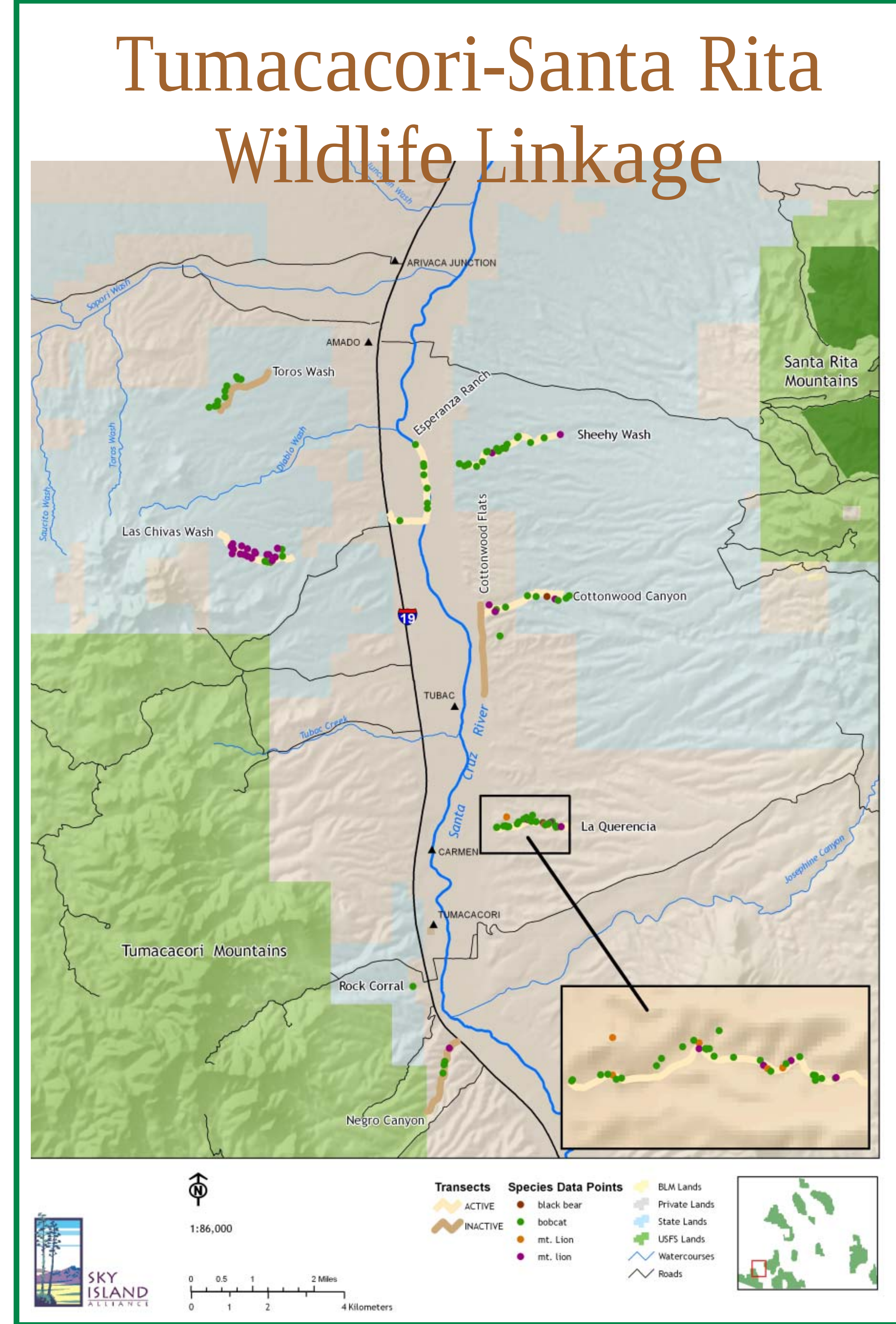


Many thanks to Sky Island Alliance tracking volunteers:

Nick Bleser
Dyna Chin
Kim Etherington
Joanna Fitzjarrald
Rich Griffiths
Bill and Ellie Kurtz
Beth Morgan
Pat Phelan
Birdie Stabel

Project mission: to train and engage citizen scientists to record data on wildlife activity within the Tumacacori-Santa Rita wildlife linkage.

ABSTRACT: Sky Island Alliance's Wildlife Linkages Program strives to preserve, restore, and increase landscape permeability for the regions' wildlife by building strong public and political support for both the concept and value of wildlife linkages. We maintain five project areas throughout southeast Arizona including the Tumacacori-Santa Rita Linkage in Santa Cruz County. Trained volunteers hike the washes and roads of the Santa Cruz Valley looking for the tracks and other signs left by targeted species, including mountain lion, black bear, coati, and bobcat. Volunteers adhere to strict documentation protocol, filing out data forms and photographing tracks for verification of species identification. Point data is then depicted on maps reflecting presence/absence of the four species on each transect. With this information Sky Island Alliance gains insight into wildlife utilization of the linkage between the Santa Rita and Tumacacori mountains.



Wildlife track surveys

Wildlife presence is monitored by conducting "track surveys" along pre-established transects. Information is collected on six focal species: black bear, bobcat, coati, Mexican gray wolf, jaguar, and mountain lion. Trained volunteers search for and document incidences of wildlife sign such as tracks, scat, scratches, scrapes, or kill sites. Occurrence of wildlife sign indicates the presence of that species on the transect. Volunteers record species, type of sign, map coordinates for the location of sign, and direction of travel if applicable or if it can be determined. Focal species sign are documented by taking photographs that include a detailed ruler placed for scale.

Methods

Focal species: black bear, bobcat, coati, Mexican gray wolf, jaguar, and mountain lion.

Recording data: A data point is a record of an occurrence of an individual animal on a transect and is only recorded for sign of one of the six focal species. A data point is assigned to a sign or set of signs made by a single animal at a single time. All trained trackers on a survey must come to a unanimous agreement on species identification in order for that data point to be accepted. If the entire group cannot positively identify the sign, then it is not documented.

Transect length and placement: Transects are non-randomly placed onto sites where focal species sign is most likely to be found. This technique is called "high-grading" (Hass et al. 2000). Conditions vary with the topography and a transect might meander along a route, but typically, transects are linear and approximately 1.5 miles.

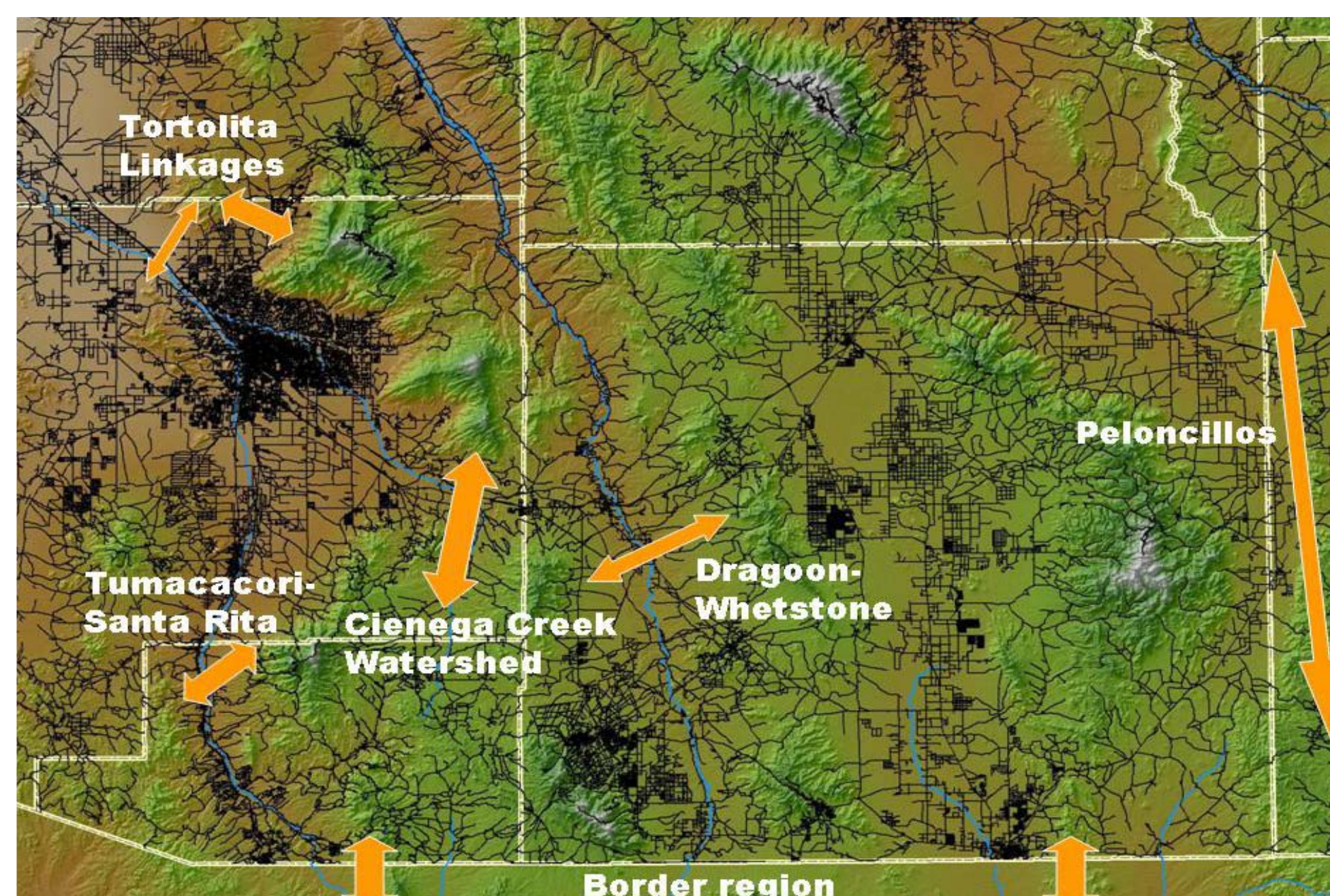
Timetable: Transects are monitored every six weeks. A two-week window incorporates two weekends thus allowing busy volunteers to schedule a survey with their teammates.

Group size: Surveys are conducted by a minimum of two Sky Island Alliance trained trackers.

Photograph documentation: All photographs of sign contain a ruler marked with data point number, date, species, and transect name.

Other species: Species other than focal species are noted separately on the data collection form. They are not assigned data points but are rated for frequency. This rating system allows us to observe changes from survey to survey on the same transect.

Track Measurements: All focal species' tracks are measured and documented. Three measurements are required: track length, track width, and plantar pad width.



Sky Island Alliance wildlife monitoring projects.

Conservation Actions:

Santa Cruz County's Comprehensive Plan recognizes that wildlife movement corridors are essential to preserving wildlife populations. Goals 2 and 8 of the Northwest Character Element contain language supporting wildlife corridors: "Wildlife corridors must be protected from any intrusive development that would impede migration routes."

With input from Sky Island Alliance, the large swath of land between the Tumacacori and Santa Rita Mountains is identified by the Arizona Wildlife Linkage Assessment as a critical wildlife linkage for many species including mountain lion, black bear, and jaguar.

Sky Island Alliance provides support for public opposition to proposals to change the Comprehensive plan and up-zone two large pieces of development within the wildlife linkage. Both proposals are defeated by a referendum vote in 2008.



SKY ISLAND ALLIANCE
Protecting our Mountain Islands and Desert Seas