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## Developing a Riparian Bird Index to Communicate Restoration Success

There is a need to develop monitoring programs that clearly define restoration success and provide pathways to improve restoration and ecosystem performance from investments in restoration.

To address these challenges in the context of riparian restoration in coastal California, we used historical bird monitoring data from reference and restoration sites in Marin County to develop a Riparian Bird Index.

This index is essentially a species richness score for a given area that is weighted by the degree to which each species detected is associated with target riparian vegetation and can be converted into a simple “poor,” “fair,” “good,” or “excellent” rating to communicate restoration success to a diverse audience.

The Riparian Bird Index is a simple yet biologically meaningful way to evaluate restoration performance and to communicate to a wide range of stakeholders. It can be used to initiate discussions among agency staff, biologists, restoration practitioners, and individual landowners on how to improve restoration performance.

This index provides a simple model for integrating bird monitoring with restoration that can be replicated in other regions.

### Next steps.

For such a tool to reach its full potential, it will need to be easily accessible and widely available. One approach would be to develop the informatics tools that facilitate data entry, tracking, and data visualizations for this format. This strategy would take our rating system from a format that is assembled by hand, to a format where the same

information is entered and assembled online to provide near real-time feedback to landowners and managers through an online progress report.

We are working to extend this concept to our work on private lands on the banks of the San Joaquin River in California’s Great Valley.

### Main Points

- Historical monitoring data can be used to develop indices that describe wildlife communities.
- The Riparian Bird Index helps multiple stakeholders agree on restoration goals.
- Stakeholders can use the Riparian Bird Index to measure progress toward those goals, and then use the information in an adaptive management framework if the goals are not being met.
- This index provides a simple model for integrating bird monitoring with restoration that can be replicated in other regions.

### Paper citation:

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