

## Research Needs Related to Monitoring Interior Least Terns

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### Goals for Monitoring

Abundance

Distribution

Productivity to increase/sustain  
population

How do we get reliable data? (what methods work  
and where?)

Spatial extent – census, sample, combination?

Temporal – every year, every other year, every 5  
years?

## Abundance and Distribution

How do we get reliable data? (what methods work and where?)

Spatial extent – census, sample, combination?

Temporal – every year, every other year, every 5 years?

How do we sample for abundance, distribution and productivity if we cannot do all sites?

## Abundance and Distribution

Do we need to worry about floaters in some areas?

What is the relationship of river stage/flow, sandbar areas, and population sizes in an area

How are tern movements among breeding areas related to hydrology?

How important are those areas not currently covered by any monitoring efforts?

How important are areas that typically host smaller numbers of terns?

## Productivity

What number of visits and methods give good estimates of number of fledglings?

To what extent is dispersal information necessary and if it is what is the best way to get that information?

Do we need information on post-fledging dispersal, survival, and habitat needs?

Modeling questions:

PVA or simple analytical models?

--Detailed demographic data vs numbers and distribution and very good coverage of the range

Is banding necessary?

Is detailed movement data necessary?

Are estimates of post-fledging to breeding and adult survival necessary?

## Types of research

Statistical

Economics/logistical

Biological









