

NPPSD 3.0 North Pacific Pelagic Seabird Database update

Gary Drew and John Piatt
U.S. Geological Survey, Alaska Science Center

- The North Pacific Pelagic Seabird Database is currently one of the largest sources of data in the world on the distribution of seabirds at sea.
- NPPSD 3.0 increased number of survey transects by more than >110,000, bringing the total to >460,000 (1973-2019).
- Users can download the updated version of the NPPSD at <https://doi.org/10.5066/F7WQ01T3>

The updated NPPSD 3.0 now includes over 460,000 at-sea transects and over 20 million bird observations. This is a 30% increase in sampling since the publication of the NPPSD v2.0 in 2015. Data from at-sea surveys, from various contributors, were standardized and binned into ~3km transects for the database. It is searchable by date, location, species, and investigator.

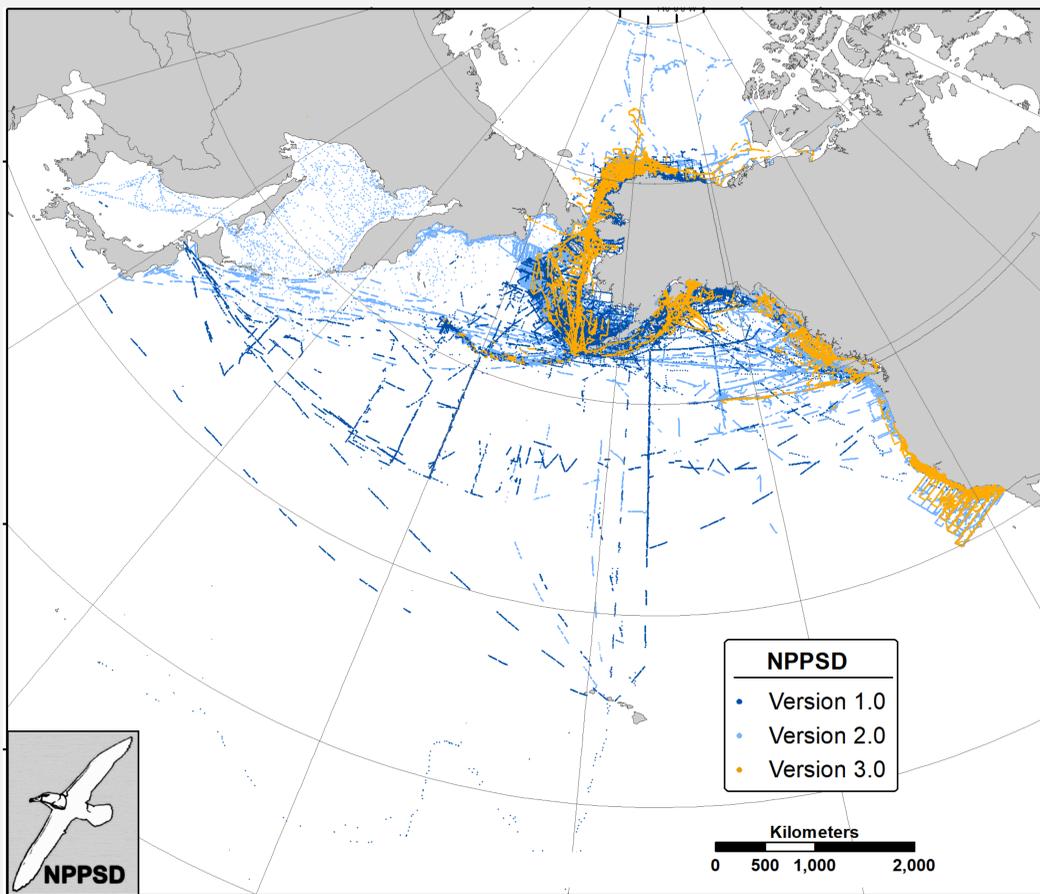


Fig. 1. Map of the NPPSD sample transects showing sample distribution. For each version, new additions are indicated by a different color.

The NPPSD 3.0 now contains data spanning over 40 years for large portions of the North Pacific. Our maps indicate sampling frequency was highly variable, though several areas showed consistent long term sampling (Figure 2).

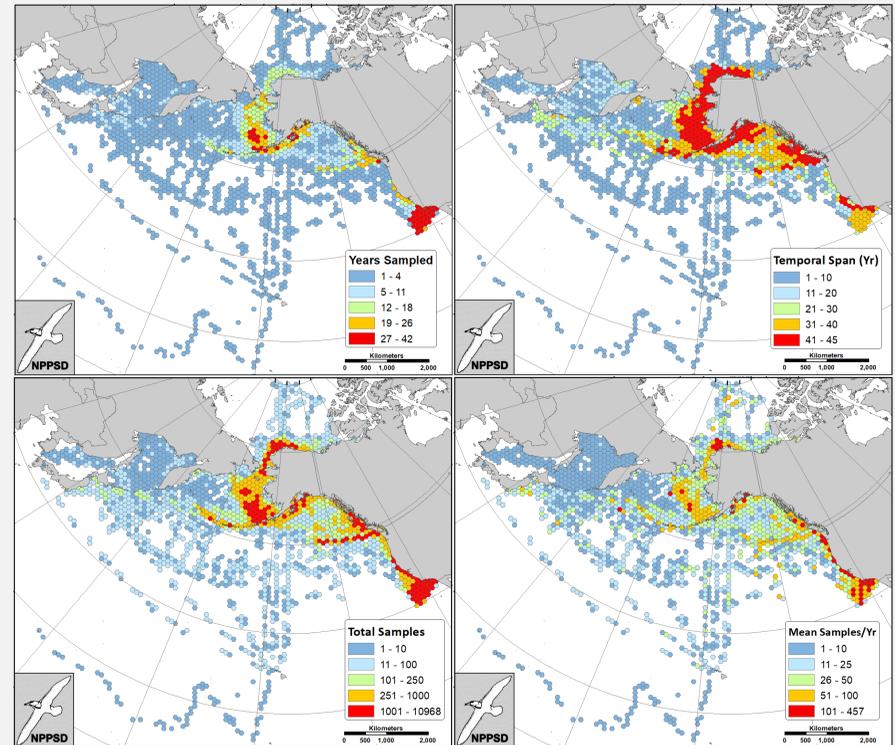


Figure 2. Maps displaying the spatial-temporal variability in sampling effort (transects) in the NPPSD v3.

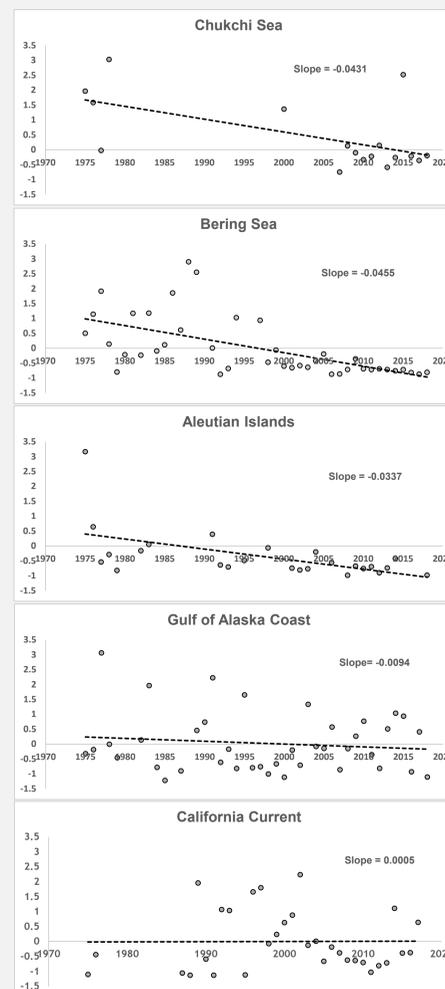


Figure 3. Comparisons of standardized at-sea densities of Murre spp. 1975-2017. Plots are arranged in latitudinal order, i.e. North at the top, South at the bottom.

Initial results using the NPPSD 3.0 to evaluate long-term population trends of selected species suggest that differences by region are following a latitudinal gradient with northern populations declining at higher rates (Fig. 3).



Availability

The NPPSD 3.0 dataset is available in two formats (1) as a Microsoft Access relational database which includes a query user interface and (2) as comma delimited "Location" and "Observation" data tables. Both downloads also include copies of the NPPSD users guide from version 2 for design and variable descriptions.

The NPPSD 3.0 is currently available from the USGS Alaska Science Center:

<https://doi.org/10.5066/F7WQ01T3>

Acknowledgments

This project was funded by USGS and BOEM. In addition we want to acknowledge the continued efforts of our partners and contributors at USFWS, NPS, Gulf Watch Alaska Program, ABR, USFS, Farallon Institute, and Environment Canada.

