

BODEGA LINE: PREDATOR MAPPING SURVEY

Accomplishments
SEPTEMBER-JANUARY
2008-2009

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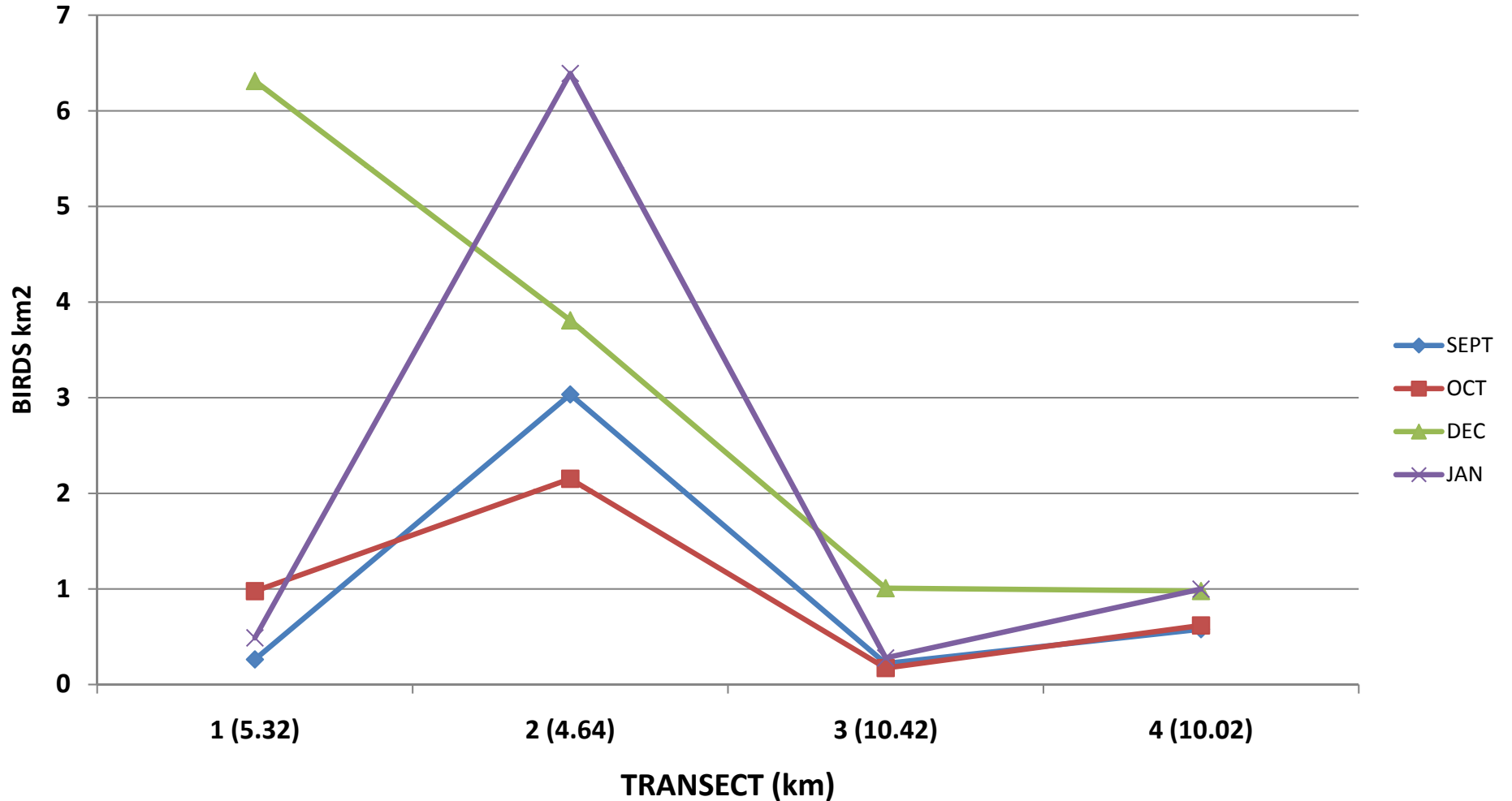
Avian Density Mapping

- Standardized strip-transect methods (100m)
- Data used for density calculation:
 - Vessel speeds ≥ 7 knots, Sea State ≤ 5 , Good Visibility
- Density estimates (birds km²)
 - calculated using the standard formula:
 - $D = n / (l \times w)$, where D is density (birds per square kilometer), n is the number of birds observed, l is the transect length, and w is the width of the strip.

Objectives

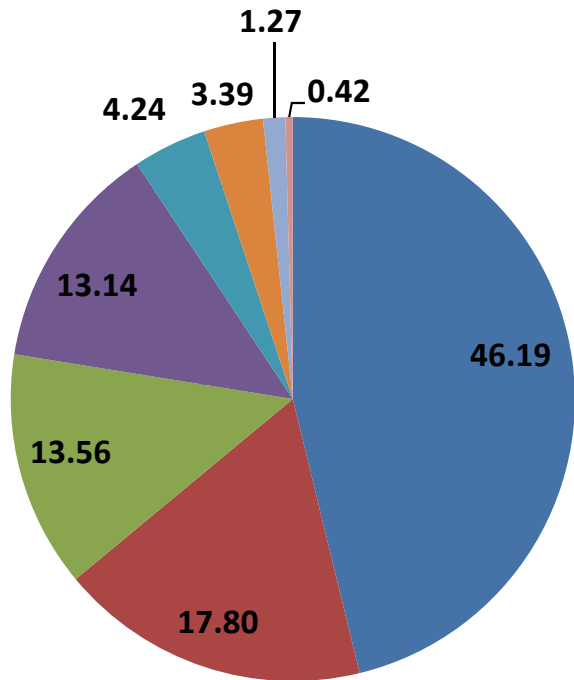
- Estimate avian/mammal abundance
 - Distribution mapping
 - Correlation with physical features and zooplankton
 - Habitat Use
 - Indices of:
 - Density
 - Species Groups
 - Community Composition
 - Intra-seasonal comparison

Total Seabird Density

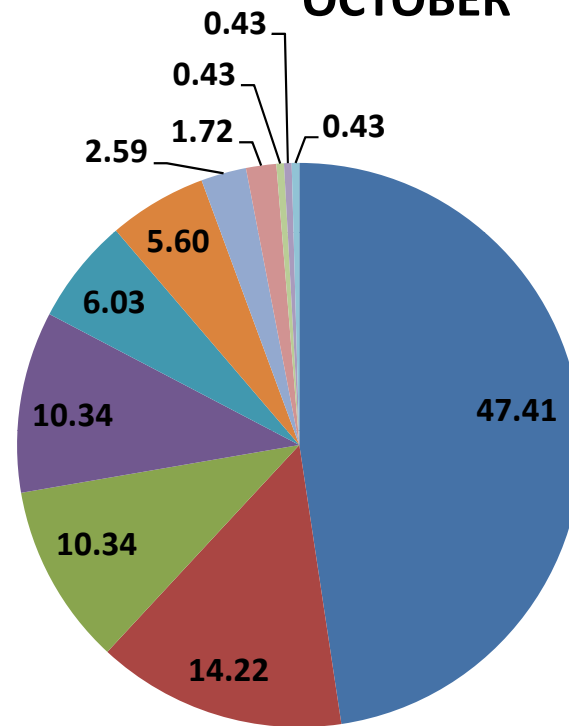


Seabird Community Composition

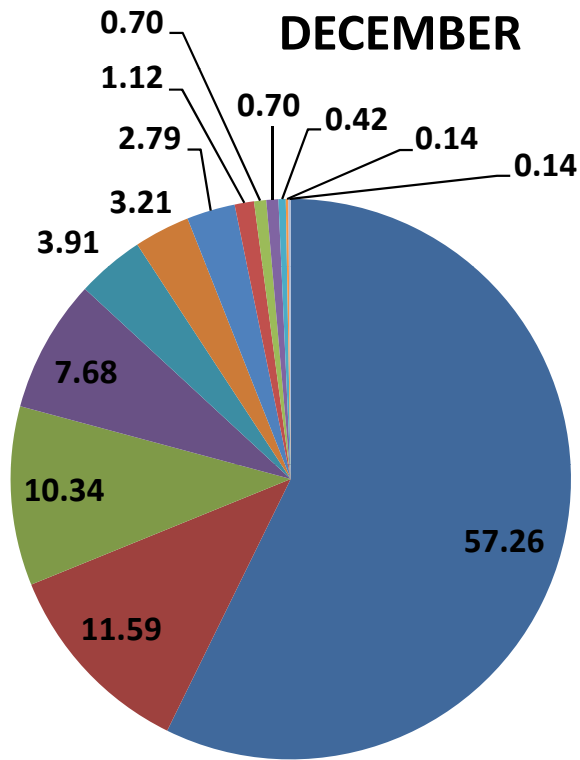
SEPTEMBER



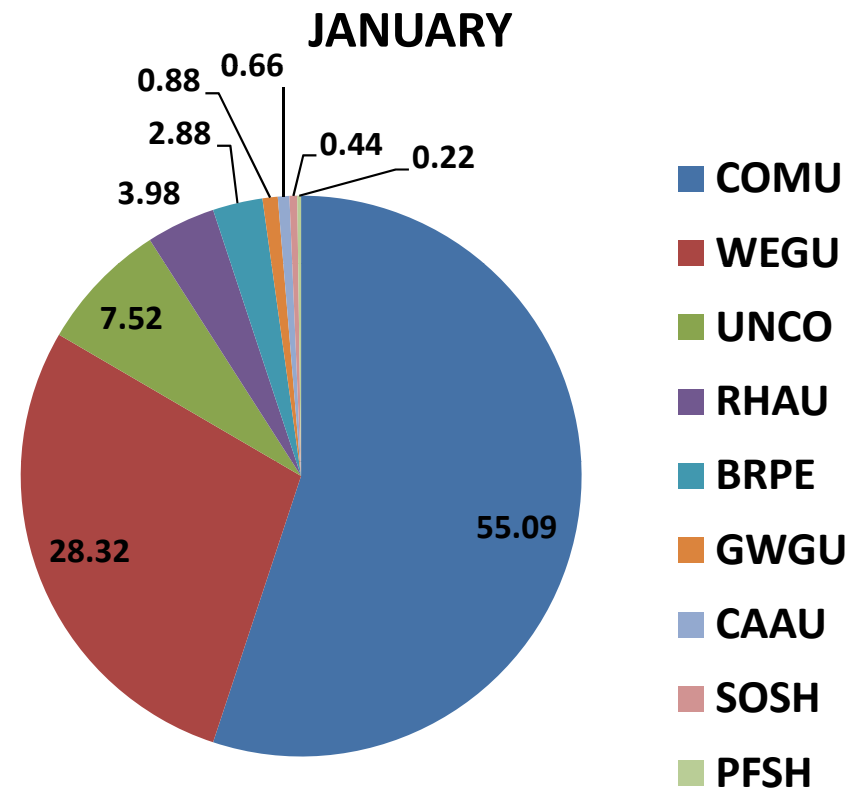
OCTOBER



Seabird Community Composition



- COMU
- WEGU
- BRCO
- RHAU
- PFSH
- SOSH
- BRPE
- CAAU
- DCCO
- PALO

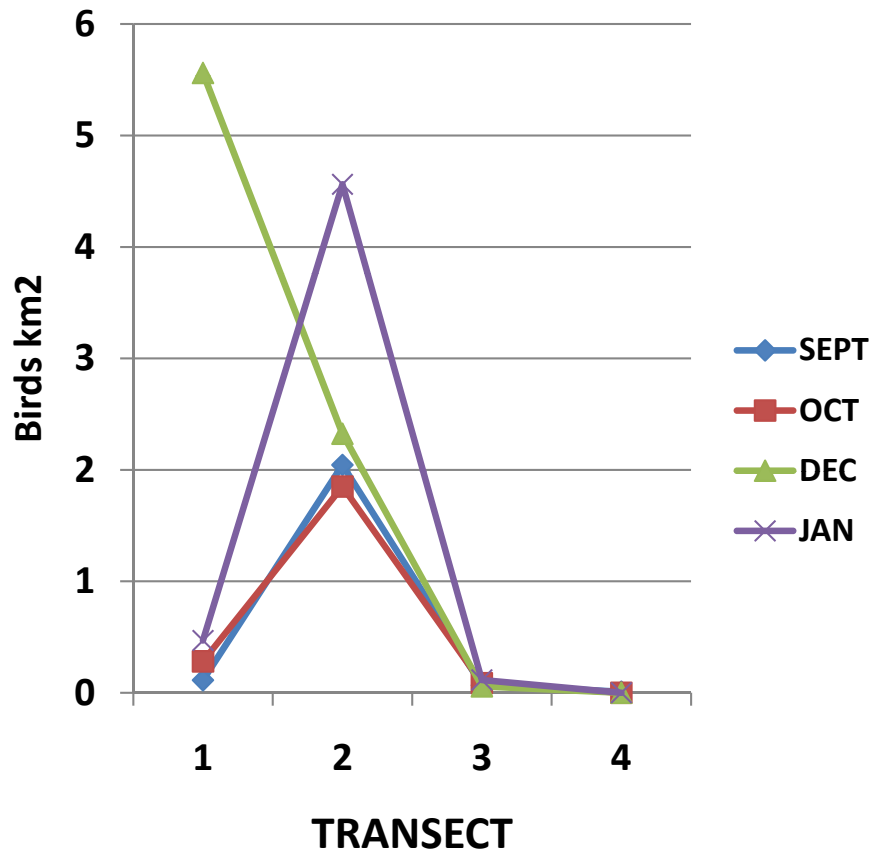


- COMU
- WEGU
- UNCO
- RHAU
- BRPE
- GWGU
- CAAU
- SOSH
- PFSH

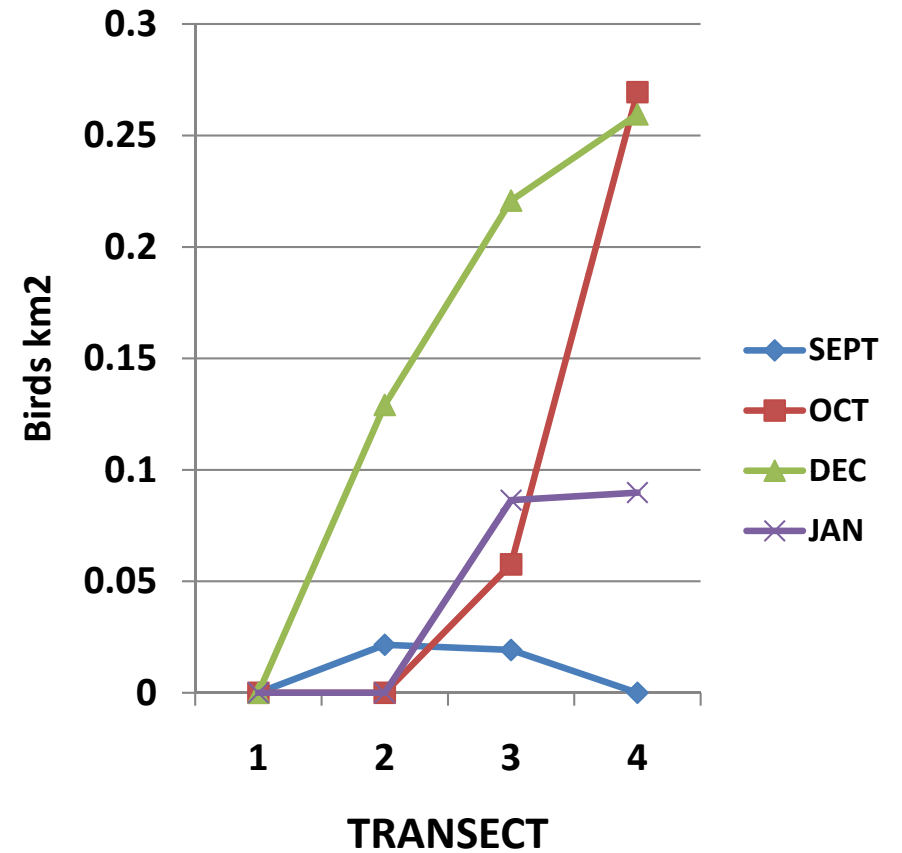
ALCIDS



Common Murre



Rhinoceros Auklet

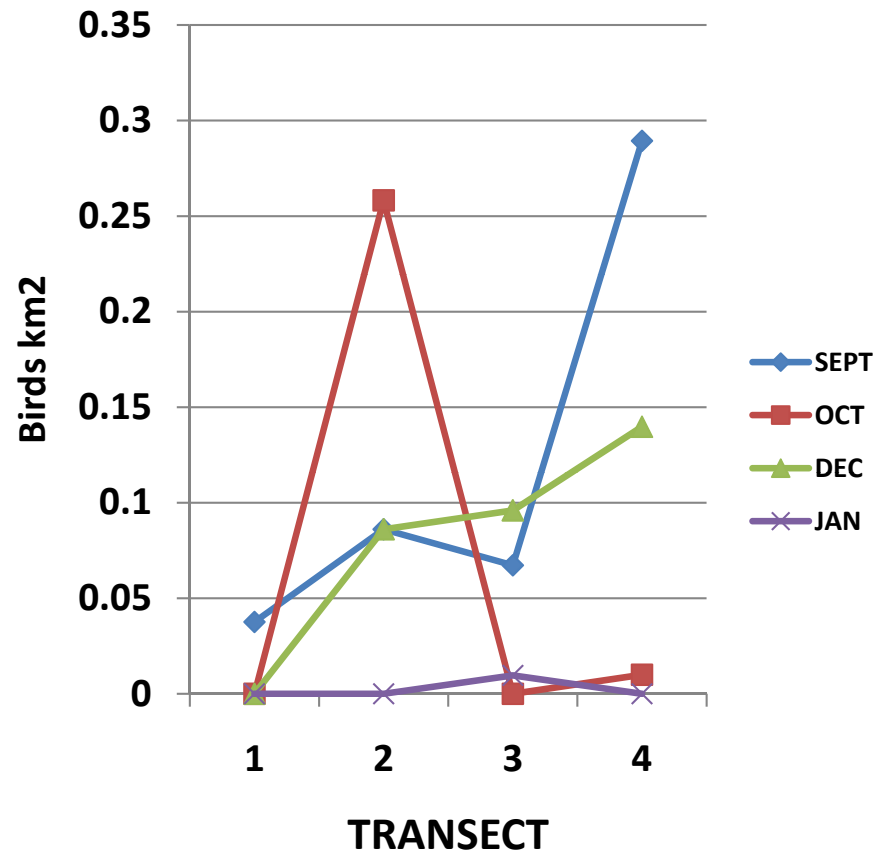




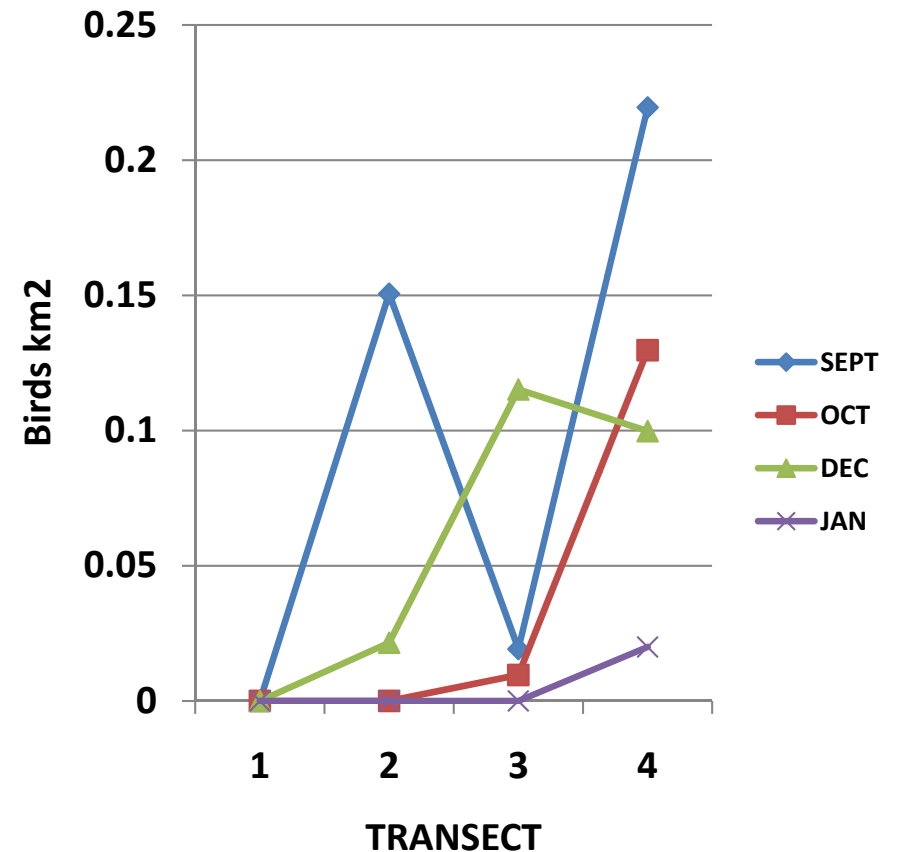
SHEARWATERS



Sooty Shearwater



Pink-footed Shearwater



Marine Mammals



SURVEY	SPECIES	Total
SEPTEMBER	<i>Humpback Whale</i>	2
	<i>Dall's Porpoise</i>	30
	<i>California Sea Lion</i>	2
OCTOBER	<i>California Sea Lion</i>	5
DECEMBER	<i>Humpback Whale</i>	2
	<i>White-sided Dolphin</i>	12
	<i>Dall's Porpoise</i>	4
	<i>California Sea Lion</i>	9
JANUARY	<i>Dall's Porpoise</i>	10
	<i>Risso Dolphin</i>	8

Conclusions

- 4 Surveys were conducted
- Total seabird density varied by distance from shore
- Seabird community composition displayed intra-seasonal variability
- Common Murres (nearshore) and Rhinoceros Auklets (offshore) displayed opposing distribution patterns
- Shearwater distribution was variable and patchy along transects
- 5 species of marine mammals were observed