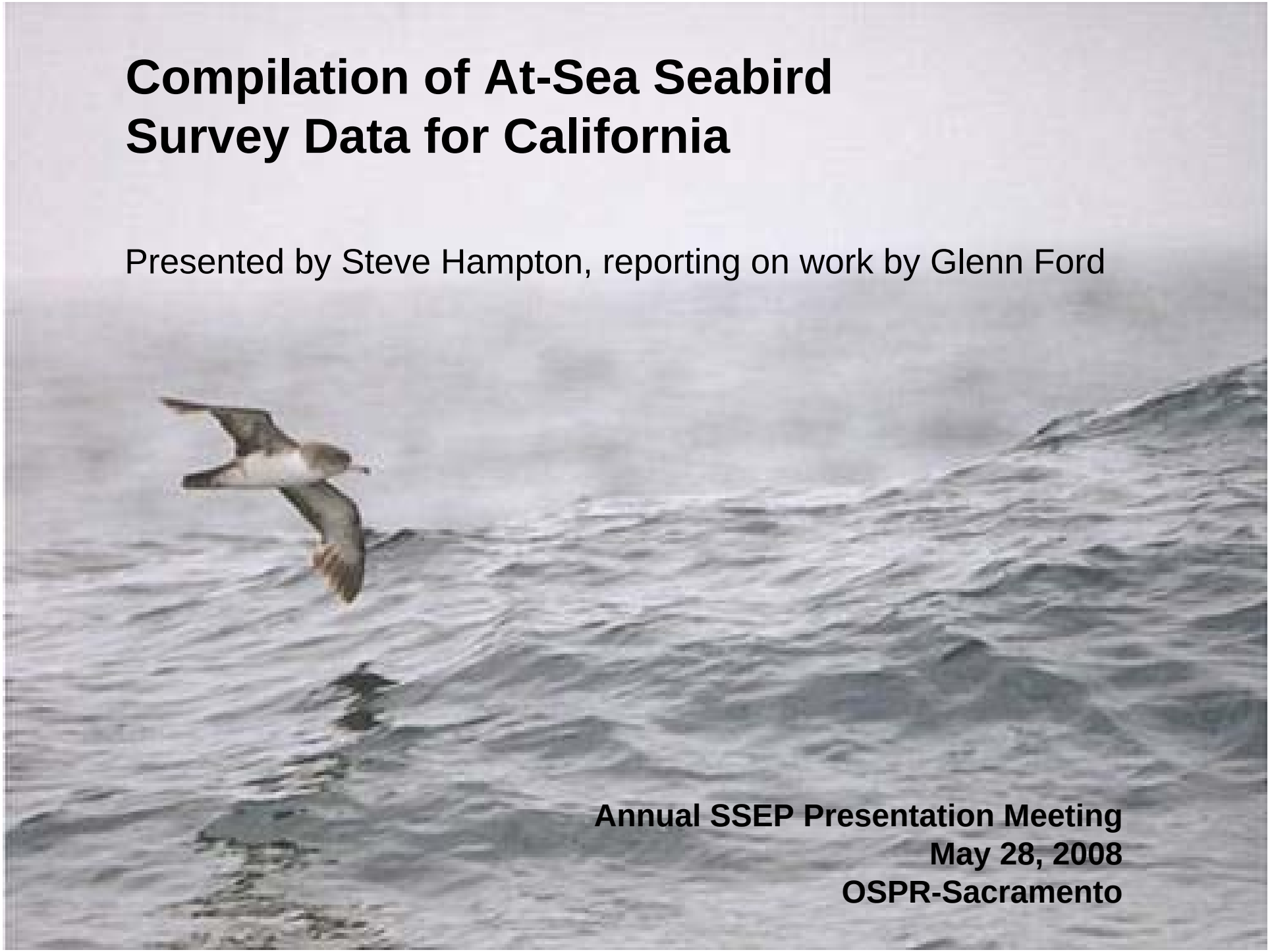
Compilation of At-Sea Seabird Survey Data for California

Seabirds are highly variable in their spatial and seasonal distributions, and it is impossible to predict their abundance without access to large datasets compiled over the years by a number of different investigators. These data can be of great value for planning for real time oil spill response, and for NRDA damage assessment. This work updates the old MMAS CDAS (Version 2.1) historical database of seabirds, including most offshore surveys from 1975 to 2008 from both the sea and air. Over 610,000 km of survey effort is included, and over 2.5 million sightings were integrated with each other. One can also immediately integrate new data into this format.

Compilation of At-Sea Seabird Survey Data for California

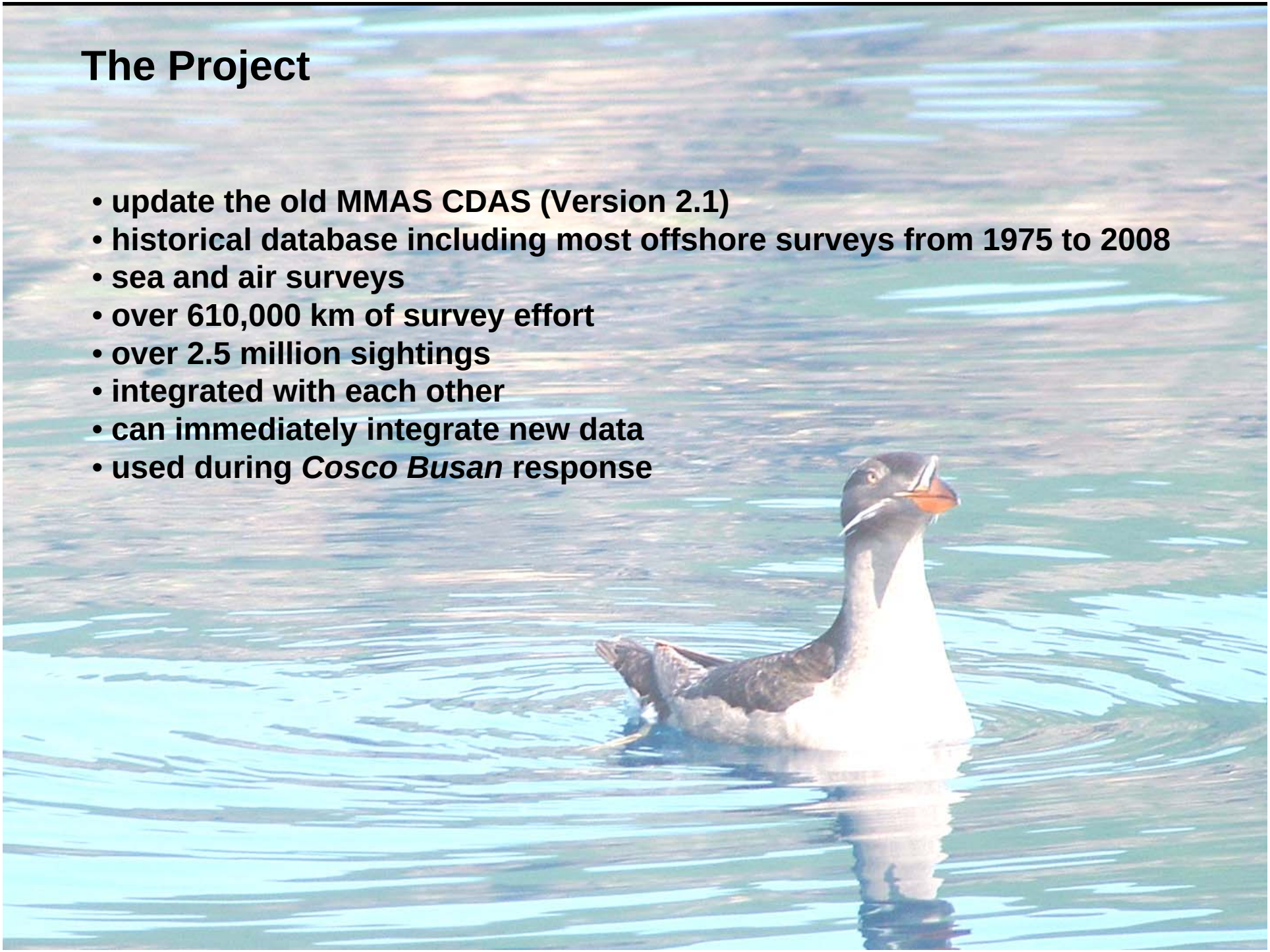
Presented by Steve Hampton, reporting on work by Glenn Ford



Annual SSEP Presentation Meeting
May 28, 2008
OSPR-Sacramento

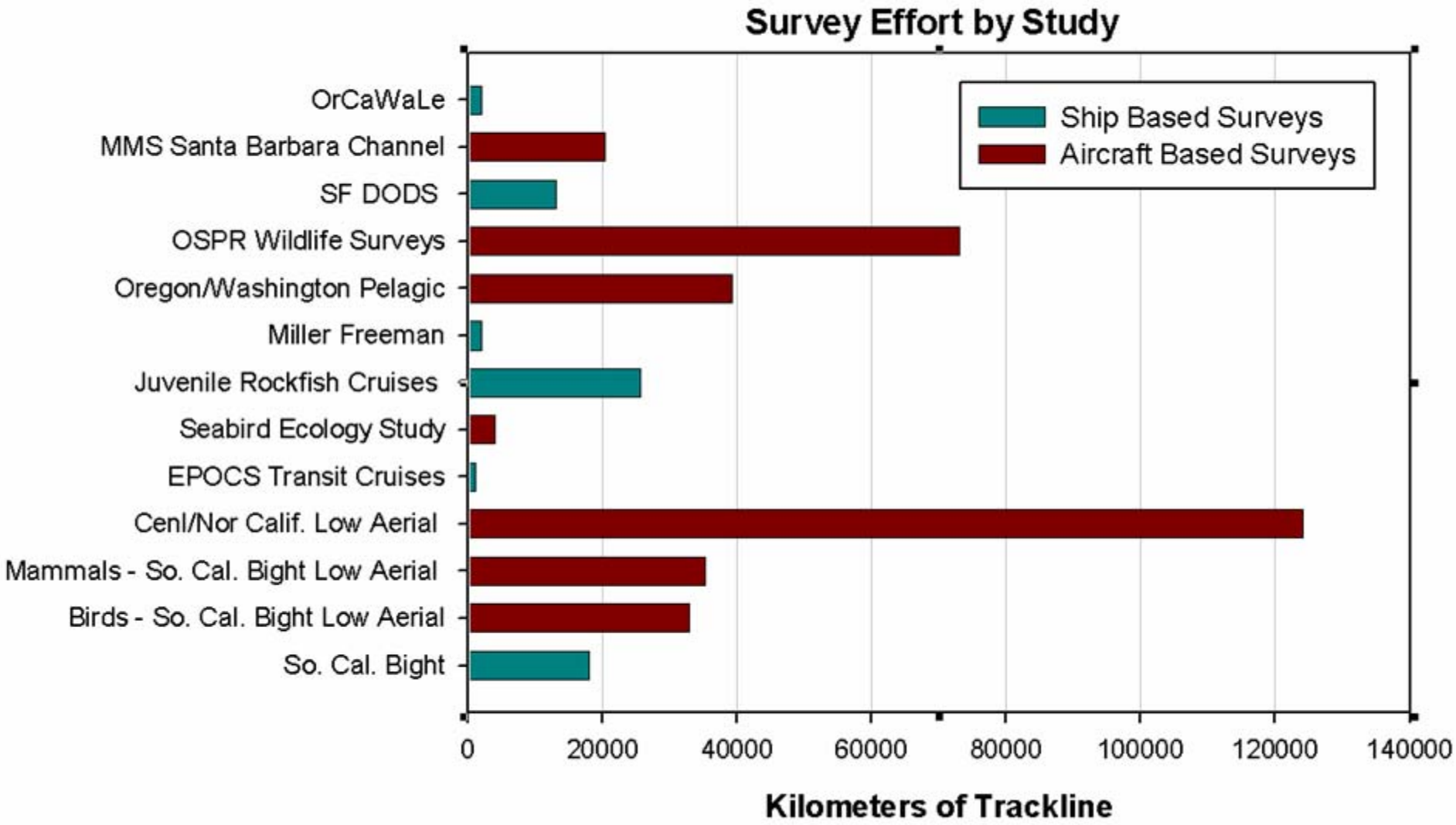

CDAS 3.0
Seabird and Marine Mammal
Distributional Database for
California and the Pacific Coast

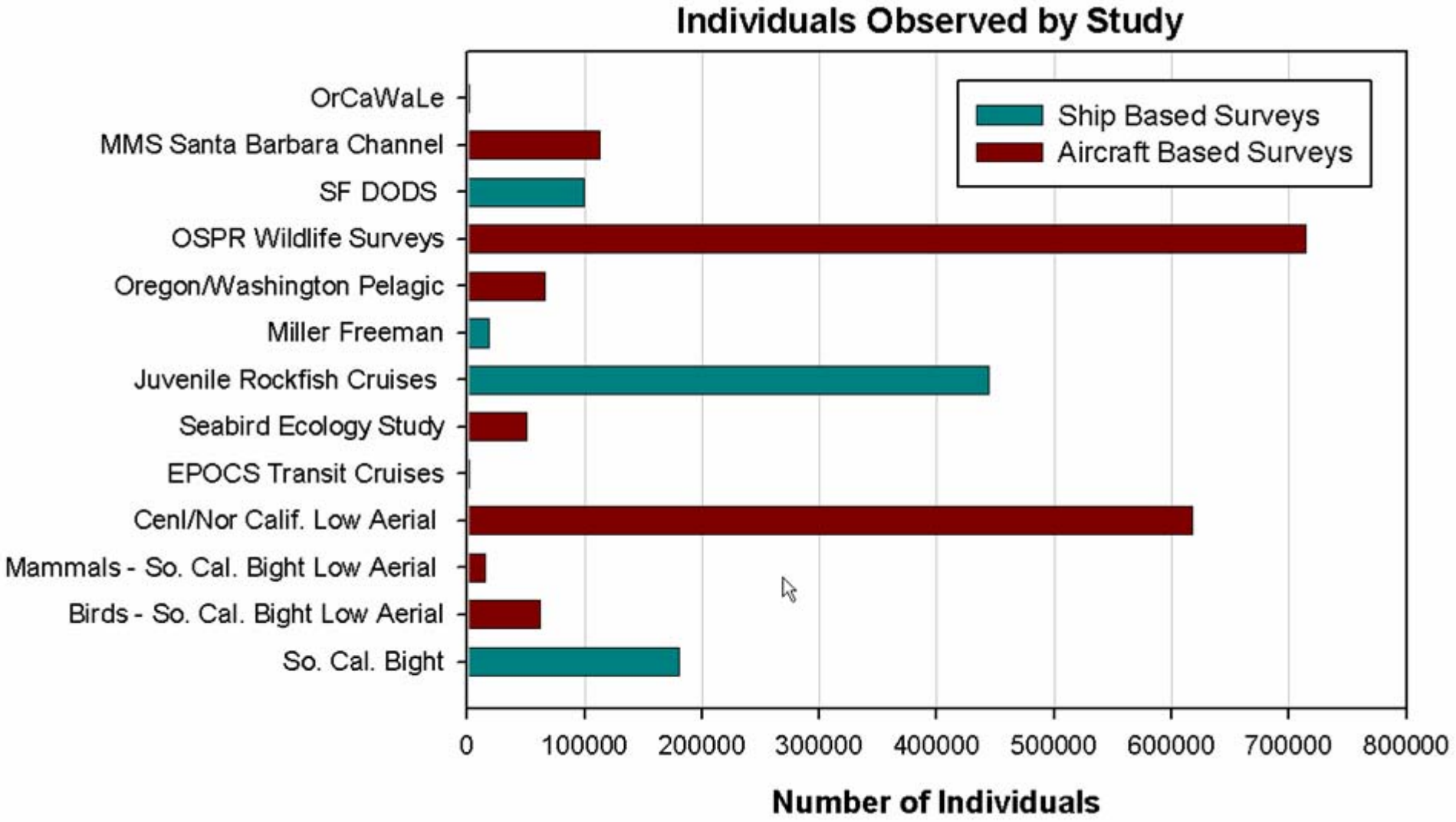
The Project



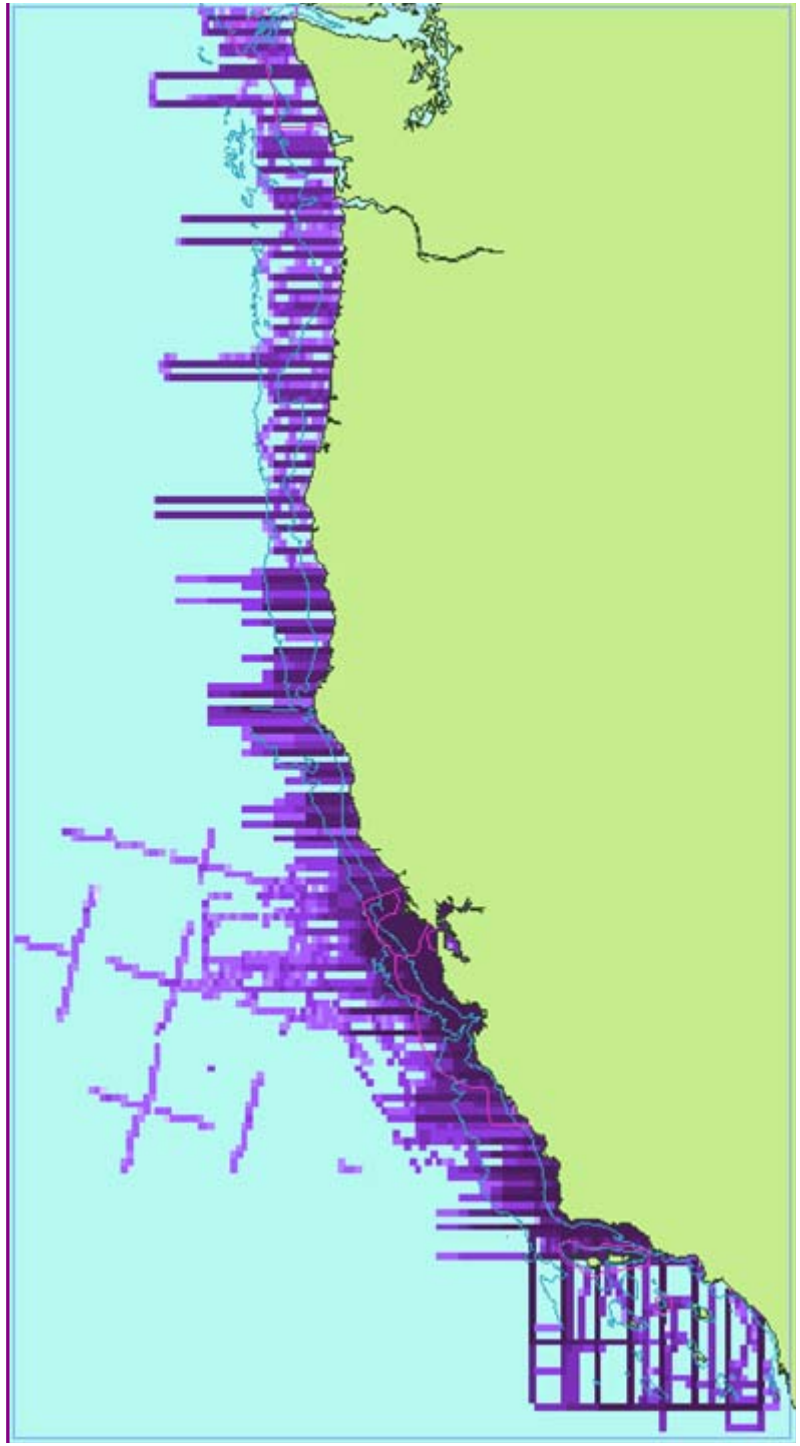
- update the old MMAS CDAS (Version 2.1)
- historical database including most offshore surveys from 1975 to 2008
- sea and air surveys
- over 610,000 km of survey effort
- over 2.5 million sightings
- integrated with each other
- can immediately integrate new data
- used during *Cosco Busan* response

The Data

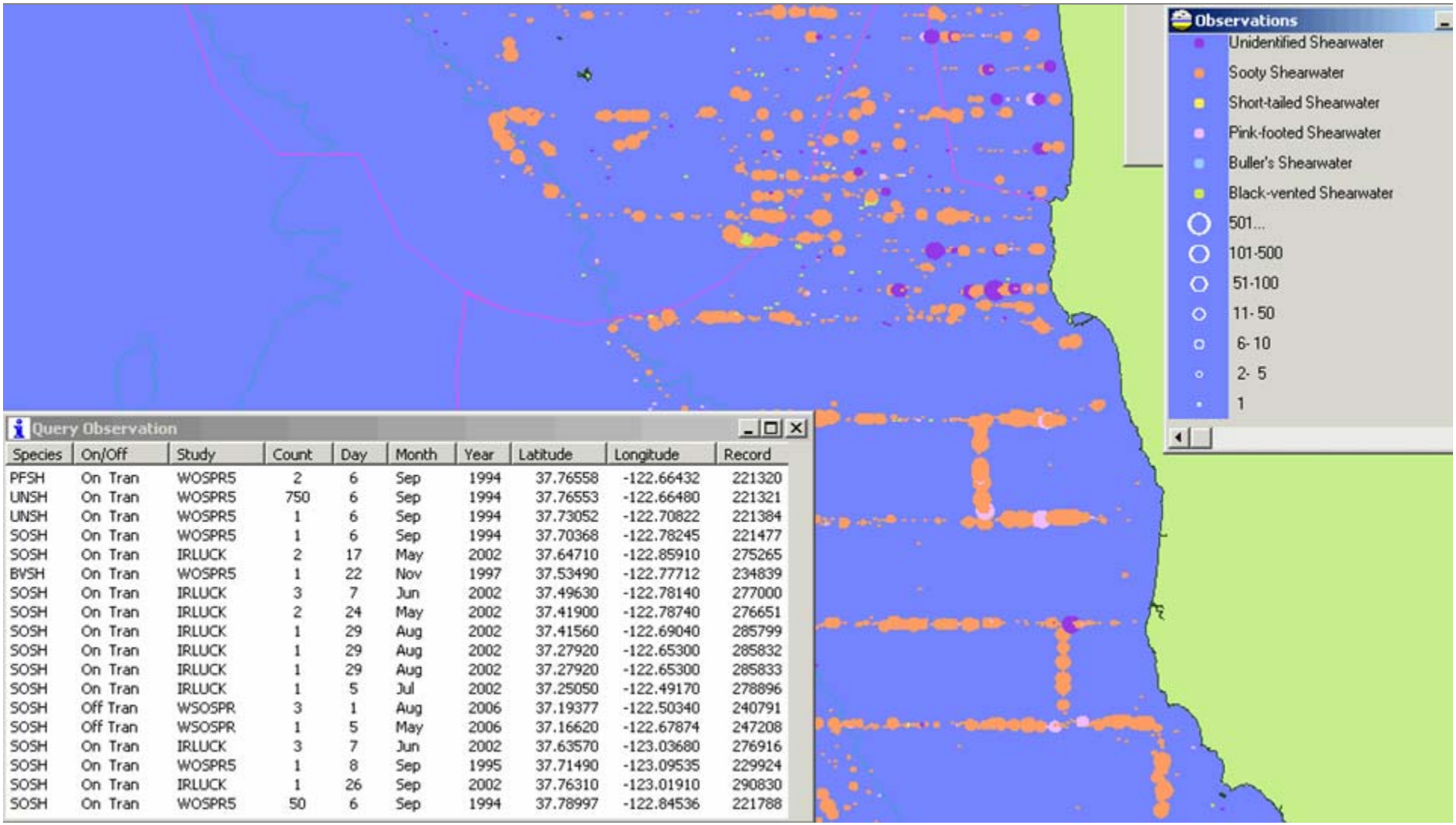

Survey Effort by Study
Ship Based Surveys
Aircraft Based Surveys
OrCaWaLe
MMS Santa Barbara Channel
SF DODS
OSPR Wildlife Surveys
Oregon/Washington Pelagic
Miller Freeman
Juvenile Rockfish Cruises
Seabird Ecology Study
EPOCS Transit Cruises
Cenl/Nor Calif. Low Aerial
Mammals - So. Cal. Bight Low Aerial
Birds - So. Cal. Bight Low Aerial
So. Cal. Bight
0
20000
40000
60000
80000
100000
120000
140000
Kilometers of Trackline


Individuals Observed by Study
Ship Based Surveys
Aircraft Based Surveys
OrCaWaLe
MMS Santa Barbara Channel
SF DODS
OSPR Wildlife Surveys
Oregon/Washington Pelagic
Miller Freeman
Juvenile Rockfish Cruises
Seabird Ecology Study
EPOCS Transit Cruises
CenI/Nor Calif. Low Aerial
Mammals - So. Cal. Bight Low Aerial
Birds - So. Cal. Bight Low Aerial
So. Cal. Bight
0
100000
200000
300000
400000
500000
600000
700000
800000
Number of Individuals

All tracklines



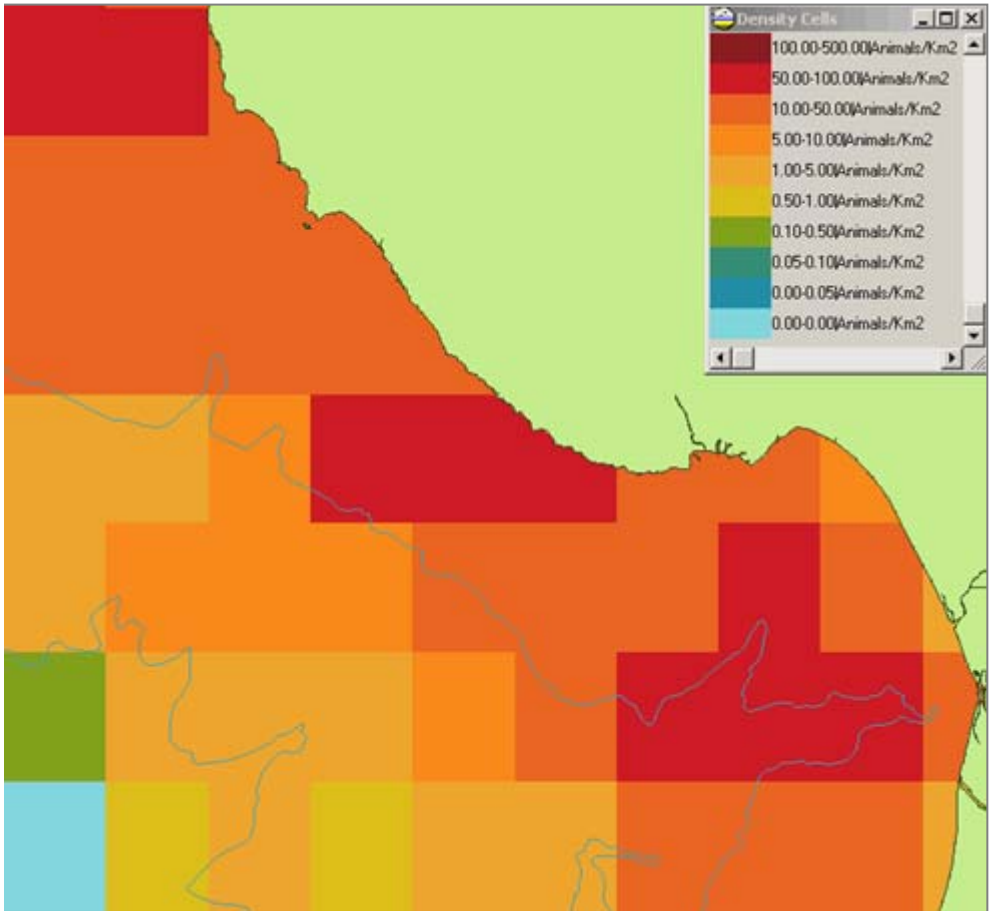
Individual Observations

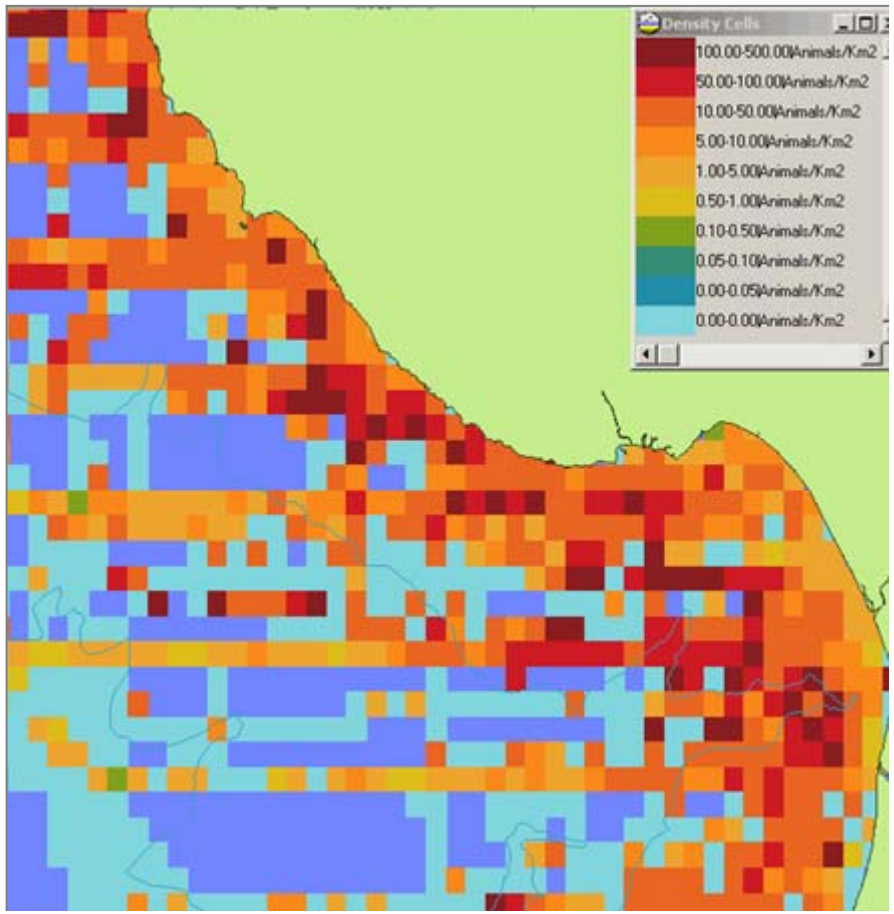


Query Observation

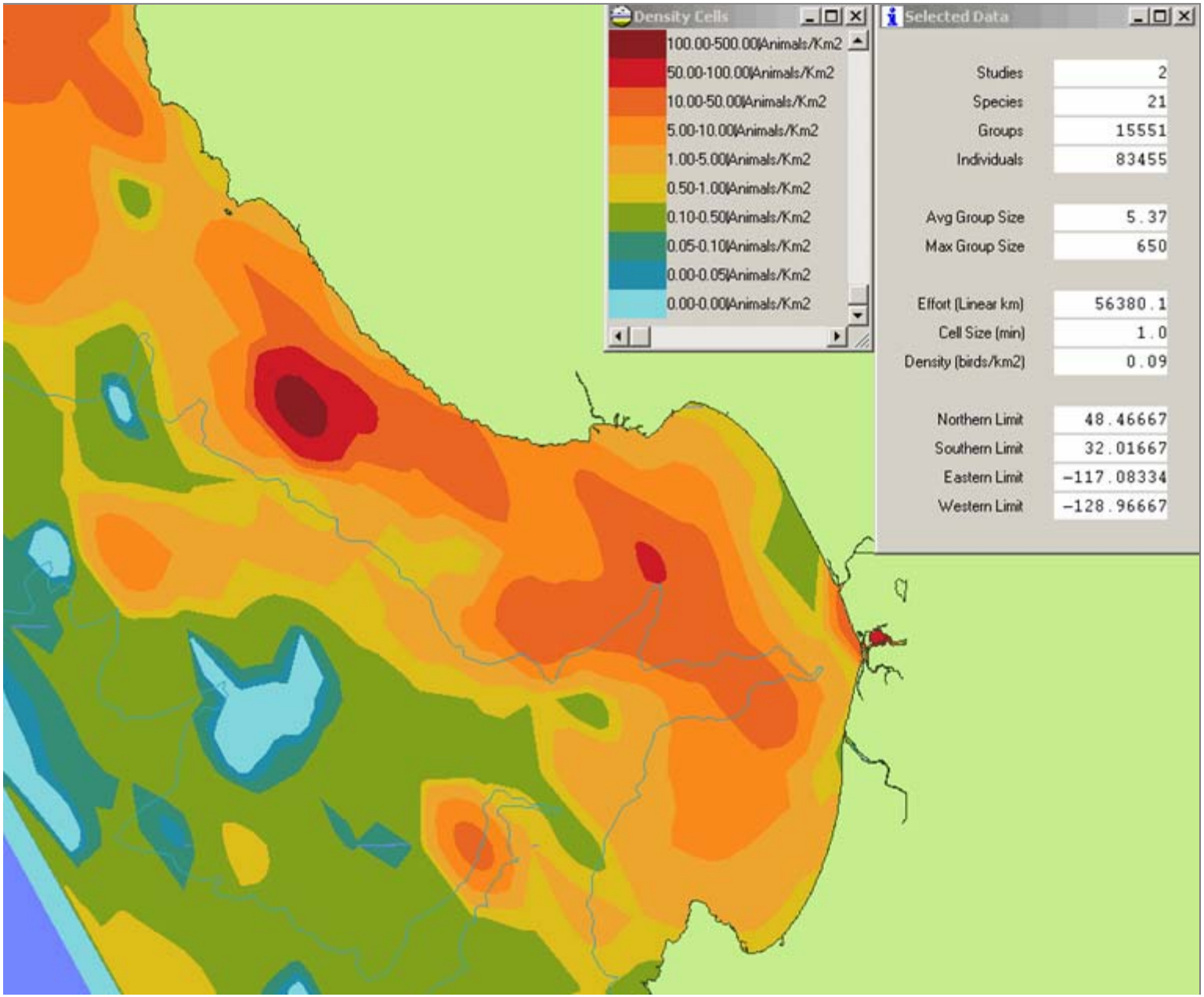
Species	On/Off	Study	Count	Day	Month	Year	Latitude	Longitude	Record
PFSH	On Tran	WOSPR5	2	6	Sep	1994	37.76558	-122.66432	221320
UNSH	On Tran	WOSPR5	750	6	Sep	1994	37.76553	-122.66480	221321
UNSH	On Tran	WOSPR5	1	6	Sep	1994	37.73052	-122.70822	221384
SOSH	On Tran	WOSPR5	1	6	Sep	1994	37.70368	-122.78245	221477
SOSH	On Tran	IRLUCK	2	17	May	2002	37.64710	-122.85910	275265
BVSH	On Tran	WOSPR5	1	22	Nov	1997	37.53490	-122.77712	234839
SOSH	On Tran	IRLUCK	3	7	Jun	2002	37.49630	-122.78140	277000
SOSH	On Tran	IRLUCK	2	24	May	2002	37.41900	-122.78740	276651
SOSH	On Tran	IRLUCK	1	29	Aug	2002	37.41560	-122.69040	285799
SOSH	On Tran	IRLUCK	1	29	Aug	2002	37.27920	-122.65300	285832
SOSH	On Tran	IRLUCK	1	29	Aug	2002	37.27920	-122.65300	285833
SOSH	On Tran	IRLUCK	1	5	Jul	2002	37.25050	-122.49170	278896
SOSH	Off Tran	WSOSPR	3	1	Aug	2006	37.19377	-122.50340	240791
SOSH	Off Tran	WSOSPR	1	5	May	2006	37.16620	-122.67874	247208
SOSH	On Tran	IRLUCK	3	7	Jun	2002	37.63570	-123.03680	276916
SOSH	On Tran	WOSPR5	1	8	Sep	1995	37.71490	-123.09535	229924
SOSH	On Tran	IRLUCK	1	26	Sep	2002	37.76310	-123.01910	290830
SOSH	On Tran	WOSPR5	50	6	Sep	1994	37.78997	-122.84536	221788

Density Blocks

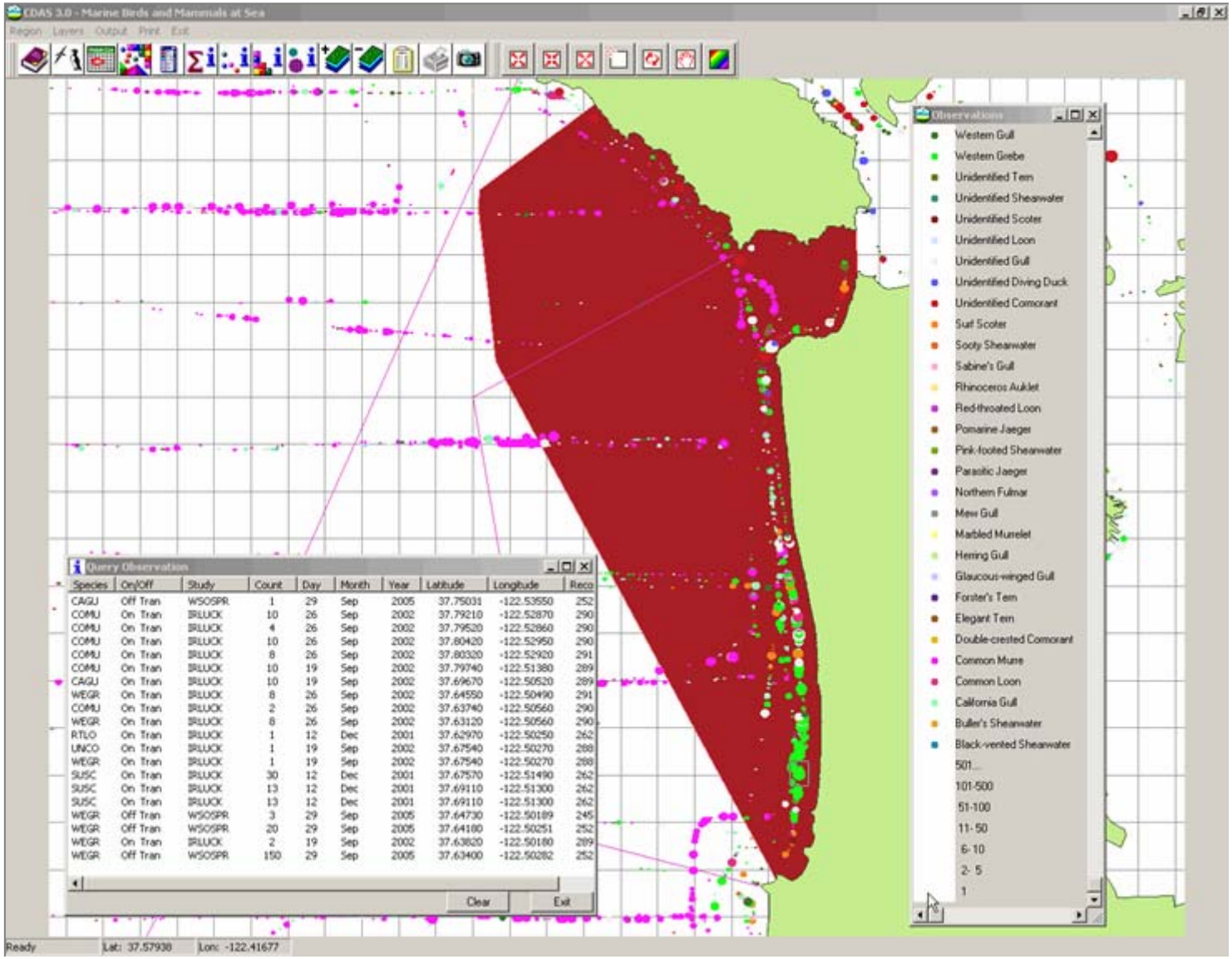




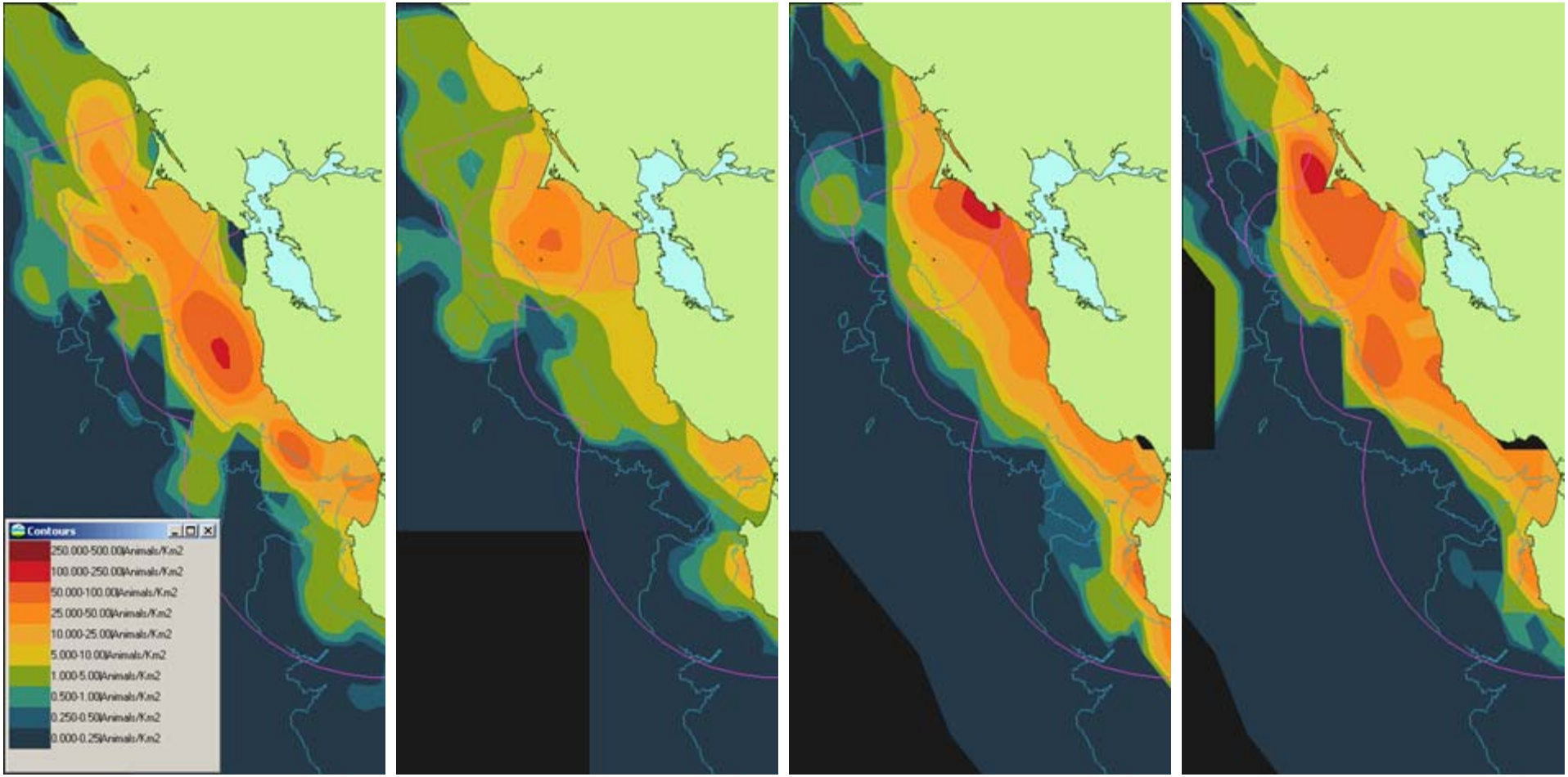
Density Contours



For Oil Spill Response and Planning



Queries



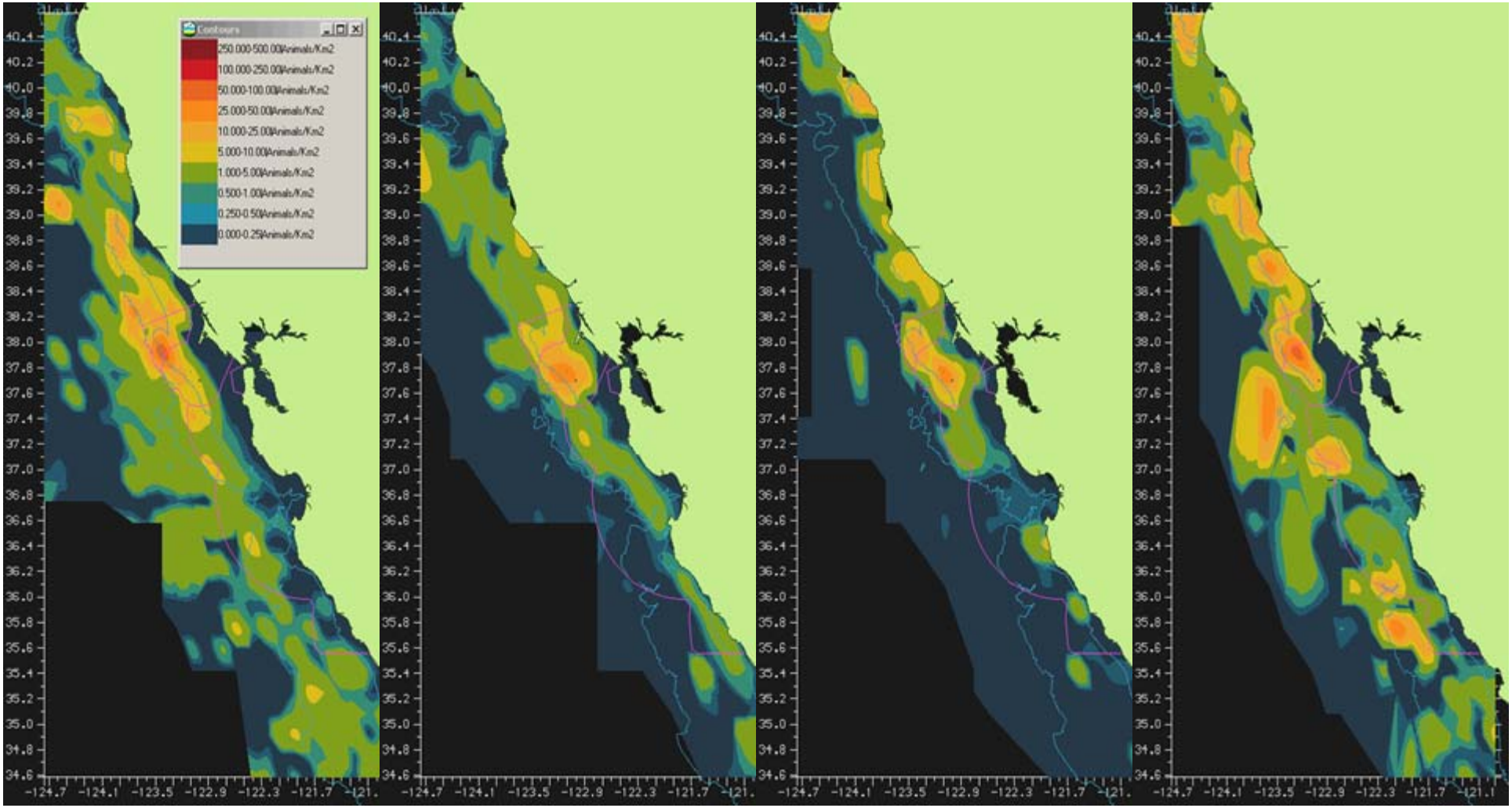
Jan-Mar

Apr-Jun

Jul-Sep

Oct-Dec

Common Murre seasonal variation



Jan-Mar

Apr-Jun

Jul-Sep

Oct-Dec

Cassin's Auklet seasonal variation

Availability

Acknowledgements

This work was carried out under an OSPR SSEP contract, administered by UCSC. We are grateful to the investigators whose data we used in this compilation. We are especially grateful to the many observers who spent uncounted hours staring at the ocean, steadfastly recording everything in their path.