Audubon IMPORTANT BIRD AREAS

MARINE IBA WORKSHOP:
SEABIRD CONSERVATION FROM BARROW TO BAJA
January 20-21, 2009

WORKSHOP GOALS

- Create standardized criteria for Marine IBAs from Barrow to Baja
- Bring together bird conservation groups in the North Pacific
- Discuss shared opportunities for conservation and funding
- Outline future collaborations and products

SCHEDULE

January 19th – Arrival in San Francisco

Hotel: Hampton Inn SFO (shuttles from airport)

January 20th – Marine IBAs: Past Experiences and New Criteria

6:30 Transfer from Hampton Inn to K & S Ranch (1.5 hours)
Breakfast and Coffee

8:30 **Introductions and Opening Remarks**
Welcome (Chisholm)
Goals and Agenda (Senner)

8:50 **Brief Overview of Current Marine Programs (5-10 min each)**
Europe, Alaska, BC, WA, OR, CA, Baja

10:00 **Presentations of Past IBA Experiences (40 min + questions)**
Global overview of Marine IBAs (Lascalles)

11:00 *Break*

11:15 **Criteria Discussion – Colonies, Aggregations and Migration (Langham)**
Definitions and datasets
Criteria: species lists, thresholds, etc.
Seaward extensions of breeding colonies
Technical committee

12:45 *Lunch*

1:30 **Criteria Discussion – At-Sea Foraging (Weinstein)**
Background on at-sea issues (Jahncke)
Criteria and datasets
Issues around Ephemera
Advisory Committee

3:00 *Break*

3:30 **Draft IBA Criteria for North Pacific (Langham)**

5:00 *Group Dinner* – Duarte's Tavern
Transfer to Half Moon Bay, Holiday Inn (30 min)

January 21st – Shared Opportunities: Conservation and Funding

8:00 Transfer to K & S Ranch (30 min)
Breakfast and Coffee

9:00 **Continue Criteria Discussions (if needed)/Partnership Ideas**
Technical committee (one from each organization)
Advisory committee (at-sea experts)
Maps, web, and other products
Seabird Policy opportunities

10:00 **Moving IBAs from Designation to Conservation**
How to make designations meaningful
Outreach
Policy committee?

10:30 **Joint Funding Opportunities**
MacArthur?
NFWF?

11:30 **Next Steps & Conclusion**
World Seabird Conference Sept 2010
Pacific Seabird Meeting Jan 2010
Follow-up meetings and tasks (Senner)
Conclusion (Chisholm)

12:30 *Lunch*

1:30 **Field Trip or Transfer I to SFO/Hampton Inn**
Año Nuevo Visitor Center/Elephant Seal colony (Strachan)

4:30 **Transfer II to SFO/Hampton Inn (1.5 hours)**

PARTICIPANT & HOTEL CONTACT INFORMATION

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http://www.hamptoninnsfo.com/

Jan 20th: **Holiday Inn Half Moon Bay**
230 South Cabrillo Hwy, Half Moon Bay, CA 94019
Phone: 1-650-726-3400
http://www.ichotelsgroup.com/h/d/ex/1/en/hotel/hafca?_requestid=1669497

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MARINE IBA WORKSHOP: CRITERIA AND NEXT STEPS

January 20th and 21st, 2009

CRITERIA SESSIONS AND NEXT STEPS

- Part I: Colonies, aggregations, and migration bottlenecks
- Part II: At-sea foraging
- Part III: Next steps, committees, and timelines
- Appendix: Seabird species and populations from Barrow to Baja

PART I: COLONIES, AGGREGATIONS, AND MIGRATION BOTTLENECKS

1. What is a seabird? (See Appendix for Barrow to Baja List)

Procellariiformes (albatrosses, petrels, storm-petrels, shearwaters)
Pelecaniformes (tropicbirds, boobies, gannets, frigatebirds)
Charadriiformes (skuas, jaegers, alcids)

2. What are Marine IBAs?

Birdlife assumes that seabird colonies are already terrestrial IBAs
(not yet for CA)

Birdlife then breaks them into 4 categories:

- Seaward extensions of breeding colonies
- Non-breeding congregations
- Migration bottlenecks
- At-sea foraging

Birdlife has shared two draft documents detailing ways to designate each category
(See Birdlife Marine Draft 1 and 2)

3. Can we modify terrestrial IBA Criteria for all four types of marine IBA?

The following criteria are taken from the National Audubon IBA website:

Global Criteria

A1	Species of Global Conservation
A4ii	≥1% global population of a seabird simultaneously; ≥5% over a season
A4iii	≥10,000 seabirds
A4iv	≥ 5% global population of a seabird passes during migration

Continental Criteria

B1	Species of Continental Conservation Concern
B4ii	≥ 1% N. Am. population of a seabird simultaneously; ≥5% over a season
B4iv	≥5% N. Am. population of a seabird passes during migration

State or Province Criteria

D1	Species of Conservation Concern
D4i	≥ 1% State or Province population
D4iv	> 5000 seabirds (State or Province defined)

4. Should we add a local criterion about number of sensitive species?

Terrestrial IBA designations in California include a rule 9 or more sensitive species at a site. Is this the right number for seabirds? (See CA maps for comparison of numbers)

5. Do we have any available migration data (A4iv, B4iv)?

If we include these criteria, we need to identify datasets and determine if only a subset of species qualify for consideration.

6. What is that right threshold for D4iv?

5000?

7. Where can we get global, continental and local populations estimates for seabirds?

A1: SPECIES OF CONSERVATION CONCERN AT THE GLOBAL LEVEL

IUCN Threatened seabirds from Barrow to Baja
(*Threatened Birds of the World*, BirdLife International 2000 & 2004)

Species	IUCN	Pop. Score	Global Population Estimates
Laysan Albatross	VU (NT)	?	2,400,000
Black-footed Albatross	EN	?	300,000
Pink-footed Shearwater	VU	?	100,000
Buller's Shearwater	VU	?	2,500,000
Sooty Shearwater	NT	?	23,000,000
Black-vented Shearwater	NT	?	100,000-200,000
Ashy Storm-Petrel	EN	?	5000-12,000
Marbled Murrelet	EN	?	500,000-800,000
Kittlitz's Murrelet	CE	?	140,000-190,000
Xantus's Murrelet	VU	?	10,000-39,700
Craveri's Murrelet	VU	?	22,000

8. PIF does not consider seabirds, so how can we create population scores?

Population thresholds that must be regularly met at a site for it to qualify as an IBA at the A1 level are as follows. It is expected that threshold numbers be supported simultaneously.

	Pop. size score (PS)=5	PS=4	PS=3	PS=2
Critical or Endangered:	1 pair / 1 individual	-	-	-
Vulnerable:				
Dispersed	5 pairs / 15 individuals	x 2	x 3	-
Aggregated	10 pairs / 30 individuals	x 2	x 3	-
Near-Threatened:				
Dispersed	10 pairs / 30 individuals	x 2	x 3	x 4
Aggregated	20 pairs / 60 individuals	x 2	x 3	x 4

B1: SPECIES OF CONSERVATION CONCERN AT THE CONTINENTAL LEVEL

IUCN Threatened seabirds from Barrow to Baja
(*Threatened Birds of the World*, BirdLife International 2000 & 2004)

Species	IUCN	Fed or State	Population Estimate	
			Global	North America
Short-tailed Albatross	VU	FE	2052	??
Black Storm-Petrel	LC	BSC	unknown	100-500k
Least Storm-Petrel	LC	BSC	100-1,000k	??
Whiskered Auklet	LC	BSC	100,000	??

9. Again, the population score issue.

Population thresholds that must be regularly met at a site for it to qualify as an IBA at the B1 level are as follows. It is expected that threshold numbers be supported simultaneously.

	Pop. Size Score (PS)=5	PS=4	PS=3	PS=2
Federal T&E:				
Dispersed	10 Pairs/30 Individuals	x 2	x 3	-
Aggregated	40 Pairs/120 Individuals	x 2	x 3	-
Bird Species Of Concern:				
Dispersed	20 Pairs/60 Individuals	x 2	x 3	x 4
Aggregated	80 Pairs/240 Individuals	x 2	x 3	x 4

10. Should we only consider breeding populations for continental or local?

11. What about changes to IUCN status or population numbers? What about estimates with high and low values—which to use for thresholds?

For example, Laysan Albatross is currently listed as vulnerable (VU). A recent IUCN effort is looking at down listing to near threatened (NT).

Xantus's Murrelet is estimated at 10,000 or 39,000 birds depending on published work.

12. How do we aggregate offshore rocks or include them as a single IBA?

Aggregation rules could range from simple area designations (e.g., 5 miles) to complex algorithms fitting all possible surfaces.

The important point is that the total area considered impact the number of sites that meet absolute thresholds (e.g., number of seabirds, percentages of populations).

13. How do we create seaward extensions of these IBAs?

Birdlife is working on species-specific radii based on factors like near shore foraging and behavior. Presumably, once we agree on radii for our species, we would use the largest radius at an IBA.

Birdlife is compiling these radii, and we can either adopt theirs or assist the process by taking responsibility for our species (see Birdlife Marine Draft 1).

PART II: AT-SEA FORAGING AND MIGRATION BOTTLENECKS

1. What do we know about important at-sea foraging "hotspots"?

Table 1. Foraging hotspots in the CA Current and Alaska Currents.

Hotspot (N to S)	Survey	Reference
Slime Bank Inner Front 50 m Isobath		Pacific Seabird Group 2006
Unimak Pass	Continuous Plankton Recorder-marine bird and mammal – 2000-2003 – Gulf of Alaska/South Bering Sea – 7500 km transect 12 times	Batten et al. 2006; B. Sydeman pers comm.
Passes within Aleutian Islands	Short-tailed Albatross satellite telemetry	Suryan et al. 2006
Vancouver Island through Eastern Gulf of Alaska – 2500 km	Line P- 1996-present Canadian Dept. Fish & Wildlife	Yen et al. 2005
La Perouse Bank (Canada)	Continuous Plankton Recorder	Batten et al. 2006
Columbia River Plume (WA)		B. Sydeman pers comm.
Cape Blanco (OR)	Unpub seabird data	B. Sydeman pers comm.
Heceta Bank (OR)	D. Ainley unpub data (Sydeman pers comm.)	B. Sydeman pers comm.
Cape Mendocino (CA)	Suspected- no data	B. Sydeman pers comm.
Pt. Arena	Suspected- no data	B. Sydeman pers comm.
Farallon Escarpment/Ridge	NMFS/NOAA	NOAA Biogeography Central CA
SF Bay Tidal Plume	NMFS/NOAA	NOAA Biogeography Central CA
Año Nuevo Shelf	NMFS/NOAA	NOAA Biogeography Central CA
Cordell Bank	NMFS/NOAA	NMFS/NOAA; CA DFG
Davenport		B. Sydeman pers comm.
Monterey Bay	CalCOFI; Center for Integrated Marine Technology, UCSC	NMFS/NOAA; CA DFG
Point Sur Shelf & Slope	CA Cooperative Oceanic Fisheries Investigations (CalCOFI)	NOAA Biogeography Central CA
Pt Conception/Santa Barbara Channel	CA Cooperative Oceanic Fisheries Investigations (CalCOFI)	NOAA Biogeography Channel Islands
Baja California Eddy (MX)		D. Croll pers comm.

2. What are the big gaps in survey data?

a. Gaps from known areas of high primary production (likely to aggregate predators).

b. Gaps relative to overall coverage.

3. What oceanic features and processes make a foraging "hotspot" and is this relevant?

These features and/or processes could serve as a proxy for gaps in survey data, and as a complement to existing survey data.

Features: static bathymetric, persistent hydrographic, ephemeral hydrographic.

Processes: upwelling, primary production (chlorophyll-a), secondary production (meso-zooplankton).

4. What are the constraints and challenges?

Designating at-sea IBA's at a spatial scale feasible for management without losing elements critical to population viability.

5. How far off the coast should we consider?

Three miles? 200 miles?

6. How can we deal with cyclical and directional change?

a. Cyclical variation due to interannual or inter-decadal variability (i.e., ENSO, PDO).

b. Climate change: less vertical mixing, less upwelling, warmer mean temperatures.

c. In warm years, seabirds seek refugia for foraging.

7. What is an Advisory committee?

The technical aspects and complexity of defining at-sea IBAs suggest that we convene a panel of marine ecology experts to advise us on criteria and final boundaries.

List of potential candidates: Ken Morgan, Rob Suryan, David Ainley, John Piatt, David Hyrenbach, Lisa Ballance, Karin Forney, Don Croll, Bill Sydeman

PART III: NEXT STEPS, COMMITTEES, AND TIMELINES

PART I. COLONIES, AGGREGATIONS, AND BOTTLENECKS (TECHNICAL COMMITTEE)

a.	Assign technical committee (Workshop Group)	Jan 21, 2009
b.	Resolve technical issues	Feb 15, 2009
	i. Adopt official species list	
	ii. Adopt terrestrial criteria	
	iii. Solve population score issue	
	iv. Adopt rules for determining a site	
c.	Create species-level radii for seaward extensions	April 1, 2009
d.	Determine official population numbers (global, continental, local)	April 1, 2009
e.	Produce draft IBAs based on Part I	June 15, 2009

PART II. AT-SEA FORAGING (ADVISORY & TECH COMMITTEES)

a.	Assign advisory committee; schedule 2 meetings (Tech)	March 15, 2009
b.	Hold first advisory meeting (Adv and Tech)	June 15, 2009
	i. Gather datasets (birds, fish, environmental)	
	ii. Adopt method to use abundance in IBA criteria	
c.	Produce IBA centroids using terrestrial criteria (Tech)	August 15, 2009
d.	Use environmental datasets to draft boundaries around centroids (Tech)	August 15, 2009
e.	Hold second advisory meeting (Adv and Tech)	October 15, 2009
	i. Finalize draft IBA boundaries (Adv and Tech)	
f.	Produce draft IBAs based on Part II	December 15, 2009

PART III. PRODUCE MARINE IBAS FOR BARROW TO BAJA (WORKSHOP GROUP)

a.	Submit plenary materials to World Seabird Conference	Feb 15, 2009
b.	Bring draft IBAs back to workshop group	January 15, 2010
c.	Produce GIS layer and physical maps of overall and regional IBAs	March 15, 2010
d.	Complete IBA descriptions	June 15, 2010
e.	Nominate Global IBAs to Birdlife International	June 15, 2010
f.	Create database to deliver IBA maps and descriptions	August 15, 2010
g.	Release IBAs at World Seabird Conference 2010 in Vancouver	Sept 7-11, 2010

APPENDIX. SEABIRD SPECIES AND POPULATIONS FROM BARROW TO BAJA

Species	IUCN[a]	Global[a]	N. America	Alaska	BC	WA	OR	CA	Baja
Laysan Albatross	VU (NT)	2,400,000							
Black-footed Albatross	EN	300,000							
Short-tailed Albatross	VU	2,052						na	
Northern Fulmar	LC	>20,000,000	>1,000,000						
Mottled Petrel	NT	~880,000						na	
Cook's Petrel	EN	~100,000						na	
Pink-footed Shearwater	VU	~100,000							
Buller's Shearwater	VU	2,500,000							
Sooty Shearwater	NT	23,000,000							
Short-tailed Shearwater	LC	>30,000,000						na	
Black-vented Shearwater	NT	100-200k							
Fork-tailed Storm-Petrel	LC	3-5,000k	>1,000,000					400	
Leach's Storm-Petrel	LC	8,000,000	>1,000,000					12,500	
Ashy Storm-Petrel	EN	5-12,000	5-12,000						
Black Storm-Petrel	LC	unknown	100-500k					>300	
Least Storm-Petrel	LC	100-1,000k							
Red-billed Tropicbird	LC	7,500						na	
Masked Booby	LC	200,000						na	
Blue-footed Booby	LC	100-500k						na	
Brown Booby	LC	200,000						na	
Red-footed Booby	LC	600,000						na	
Magnificent Frigatebird	LC	200,000						na	
South Polar Skua	LC	10-20k							
Pomarine Jaeger	LC	50-100k							
Parasitic Jaeger	LC	500-1,000k							
Long-tailed Jaeger	LC	500-1,000k							
Dovekie	LC	16,000-36,000k						na	
Common Murre	LC	18,000,000							
Thick-billed Murre	LC	22,000,000						na	
Black Guillemot	LC	400-700k							
Pigeon Guillemot	LC	470,000							
Marbled Murrelet	EN	500-800k	500-800k						
Kittlitz's Murrelet	LC	140-190k						na	
Xantus's Murrelet	VU	10-39k						5000	
Craveri's Murrelet	VU	22,000	22,000						
Ancient Murrelet	LC	1,000,000							
Cassin's Auklet	LC	2,500-5,000k							
Parakeet Auklet	LC	800,000							
Least Auklet	LC	24,000,000							
Whiskered Auklet	LC	100,000						na	
Crested Auklet	LC	8,200,000						na	
Rhinoceros Auklet	LC	800,000							
Horned Puffin	LC	800,000							
Tufted Puffin	LC	2,400,000							

[a] Status and numbers taken from IUCN Red list website