

Dead Birds Don't Lie

But What Are They Really Telling Us?

Julia K Parrish
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A Brief History of Human- Seabird Interactions

The image is a composite. The top-left corner shows a small map of New Zealand with a circle highlighting the Hauraki Gulf region. The main part of the image is a detailed map of the Hauraki Gulf and surrounding areas, including Whangarei, Auckland, and the Coromandel Peninsula. The map is overlaid with a legend in the top-right corner that reads 'Islands:' with a blue dot for 'Rat free' and a red dot for 'Rat invaded'. A scale bar below the legend shows 0 to 20 km. The map uses these colored dots to mark various islands. In the bottom-left corner, there is an inset photograph showing a close-up of a rat's tail and fur, likely a brown rat, which is the species being studied in the project.



Introductions, Fur Trade



Art Sowlis



copyright 2006 Troy Guy



Ian Jones

Extractions, Fisheries



Graham Robertson



Dave Houston



Yuri Artukin

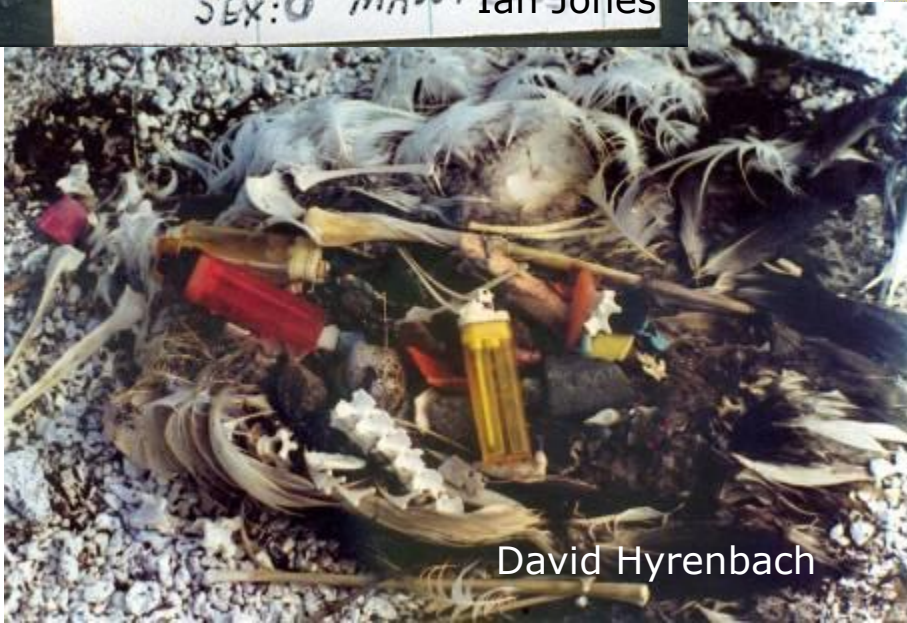
Fishery Effects - Provisioning



Pollution, Oil

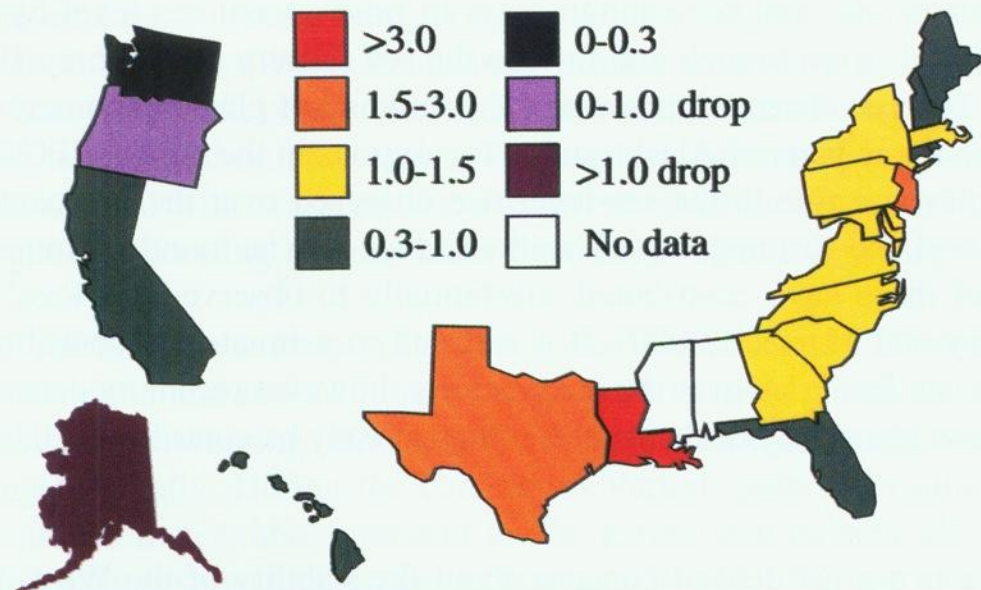
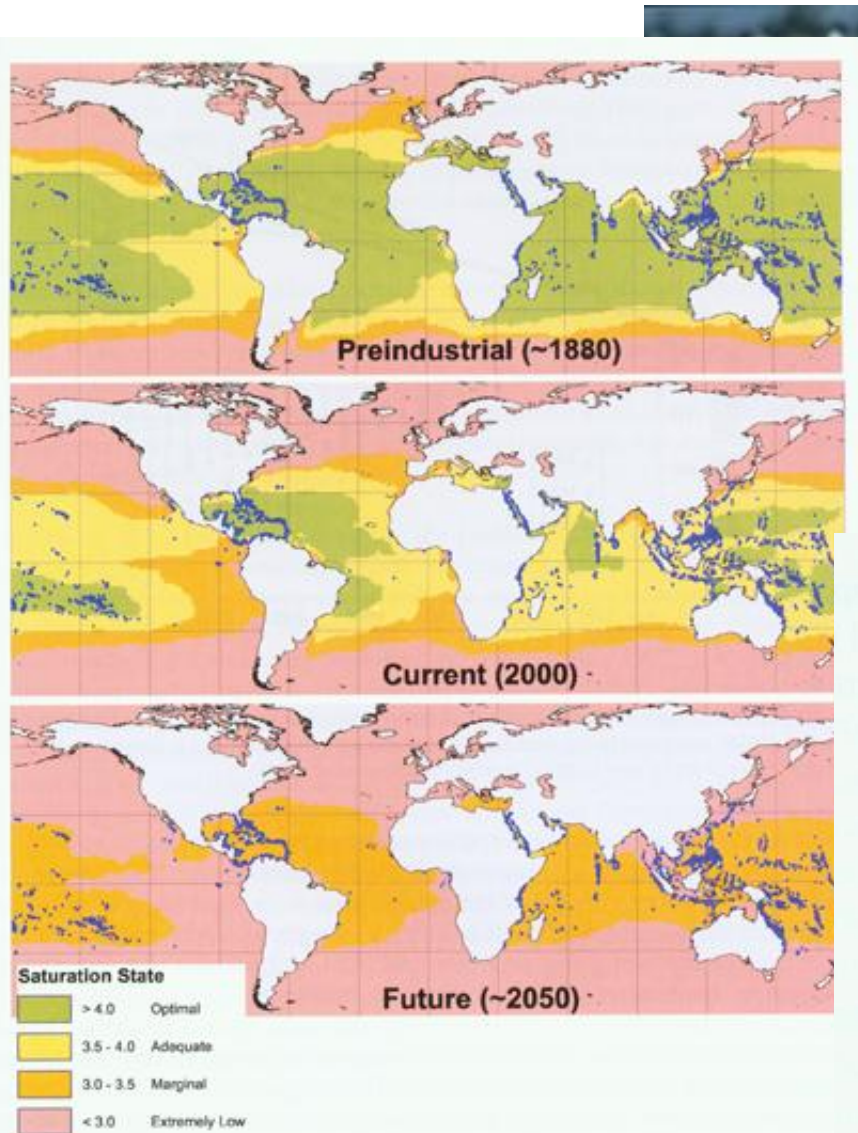


Pollution, Plastics and Marine Debris



Mind Like Water, Inc.

Climate Change, Sea Level Rise





(O A S T

The Coastal Observation and Seabird Survey Team

check us out @ www.coasst.org



COASST

COASTAL OBSERVATION AND SEABIRD SURVEY TEAM

WHAT'S COASST?

GET INVOLVED

COASSTAL NEWS

FIND A BEACH

BEACHED BIRD PATTERNS

VOLUNTEER TOOLBOX

CONTACT US

MAKE A GIFT TO COASST

LIVE CHAT



What is COASST?

- COASST is a rigorous citizen science project of the University of Washington in partnership with state, tribal, and federal agencies, environmental NGOs, and community groups.
- Participants survey beaches for beach-cast bird carcasses.
- Participants also collect data on oil, dogs, humans and vehicles on beaches.

COASST Mission: empower community members to personalized action through participation in science – collecting information that makes a difference.

Who is COASST?



Hillary Burgess
*Marine Debris
Coordinator*



Jane Dolliver
*Seabird
Coordinator*



Erika Frost
*Volunteer
Coordinator*



Julia Parrish
*Executive
Director*



Heidi Pedersen
*Trainer;
Data Verifier*



Jenn Ma
Graduate Student



Charlie Wright
Data Verifier



10-15 Student Interns

Who is COASST?



Occupations:

Retired	44%
Science	26%
Education	17%
Business	12%
Health	10%
Student	8%
Self employed	8%

average age = 58
(range=7-93)

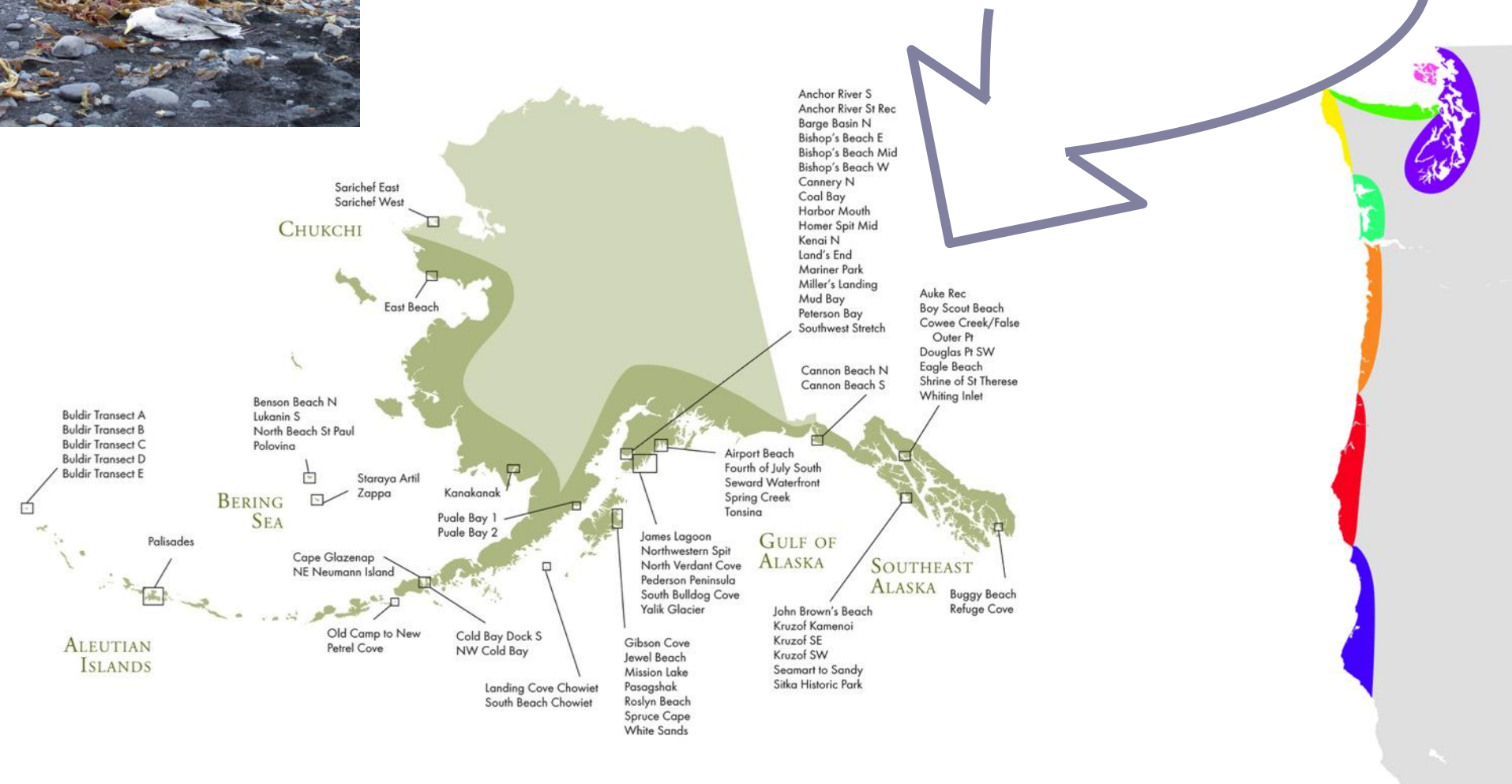
female 63:male 37

couples, families 40%



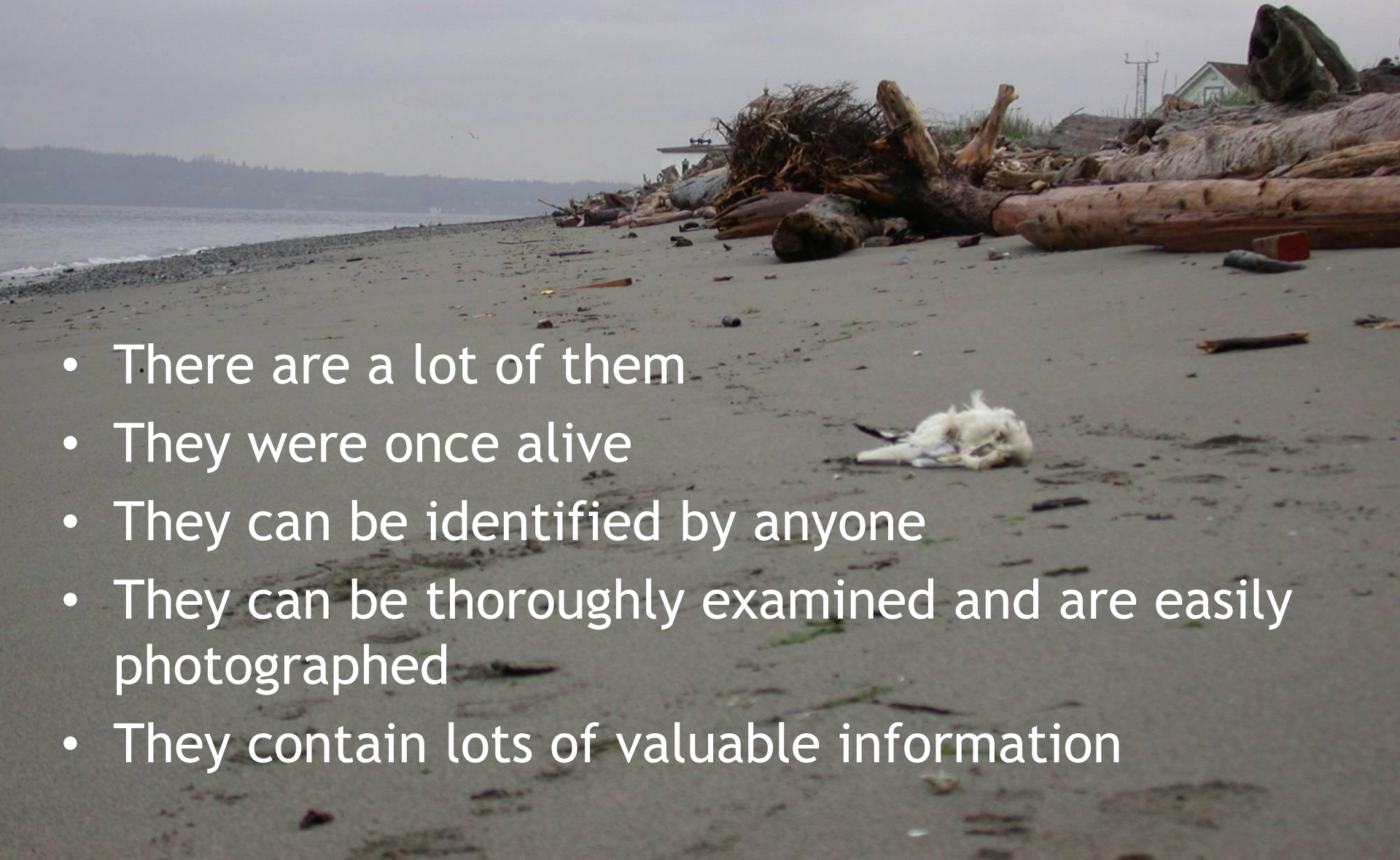
Where is COASST?

in Alaska



Why Document *Dead Birds*?

- There are a lot of them
- They were once alive
- They can be identified by anyone
- They can be thoroughly examined and are easily photographed
- They contain lots of valuable information



How Does COASST Work?

- Recruit and train local citizens
- Arm them w/ rigorous protocol, field guide, datasheets



BEACHED BIRDS

A COASST Field Guide

Todd Hass
Julia K. Parrish



- Web-based “smart” data input
- Final verification by experts



- Data analyzed and presented

COASST

COASTAL OBSERVATION AND SEABIRD SURVEY TEAM

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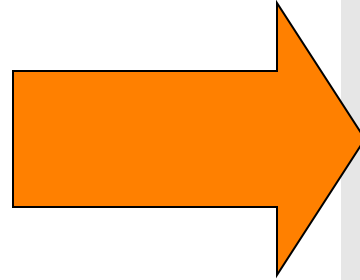
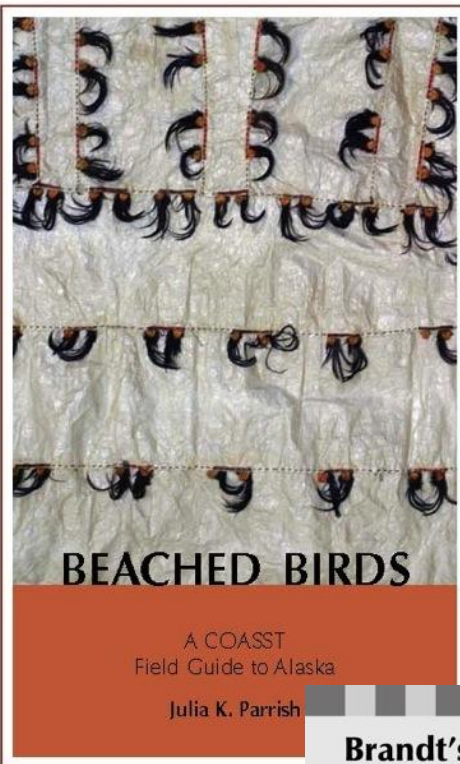
SITE MAP



BEACHED BIRDS

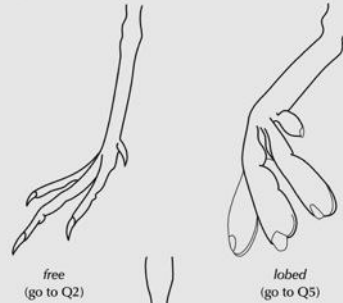
A COASST
Field Guide to Alaska

Julia K. Parrish

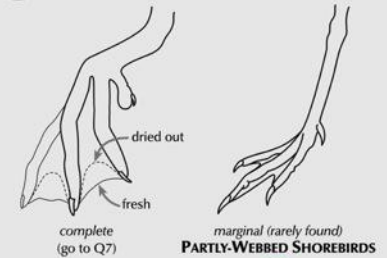


Foot Key

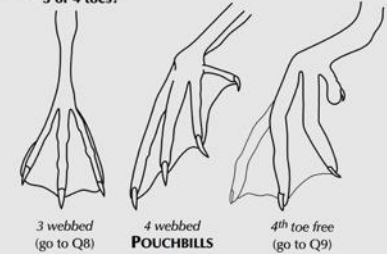
Q1 Are the front toes free, lobed or webbed?



Q6 If webbed, is the webbing complete or marginal?



Q7 If completely webbed, does the foot have 3 or 4 toes?



25

Brandt's Cormorant

Phalacrocorax penicillatus

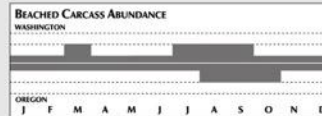
PLUMAGE VARIATION



- 1 FACE
tan chin
- 2 THROAT POUCH
blue (fades)



PB2



DESCRIPTION

- FTF: Pouchbills 4 webbed toes
cormorants hooked bill; large, dark body; long neck, broad wings
- Brandt's Cormorant
adult dark bill; tan chin
breeding blackish body with slight sheen
thin white plumes extending back from sides of head and back; electric blue throat pouch (fades with exposure)
non-breeding throat pouch may not be blue; plumes absent
juvenile dull brown body; belly and neck usually tan to whitish

MEASUREMENTS

- bill length 60–80 mm
wing chord 26–30 cm
tarsus 59–72 mm

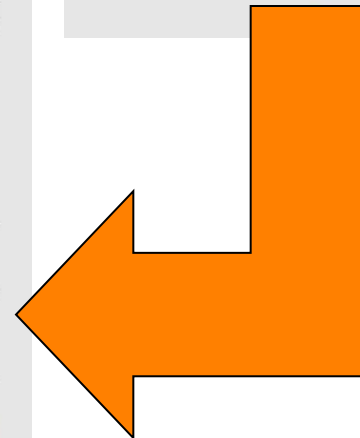
SIMILAR SPECIES

- Double-crested cormorant stout yellow-orange bill and throat pouch
Cormorant [dark, blue]; dark chin [tan]; back feathers blunt-tipped [pointed]
Pelagic Cormorant smaller; slender bill; dark chin [tan]

DID YOU...?

- ☒ Determine foot type?
- ☒ Note bill shape?
- ☒ Note color of chin feathers and throat pouch?
- ☒ Note color of underparts?

PB3





Pouchbills

FTF: Pouchbills
cormorants, pelicans



FOOT DESCRIPTION: 4 webbed toes

1

type foot
take 3 measurements
photograph w/ scale &
plumage characters

2



bill: 'hairline' to tip of bill

3

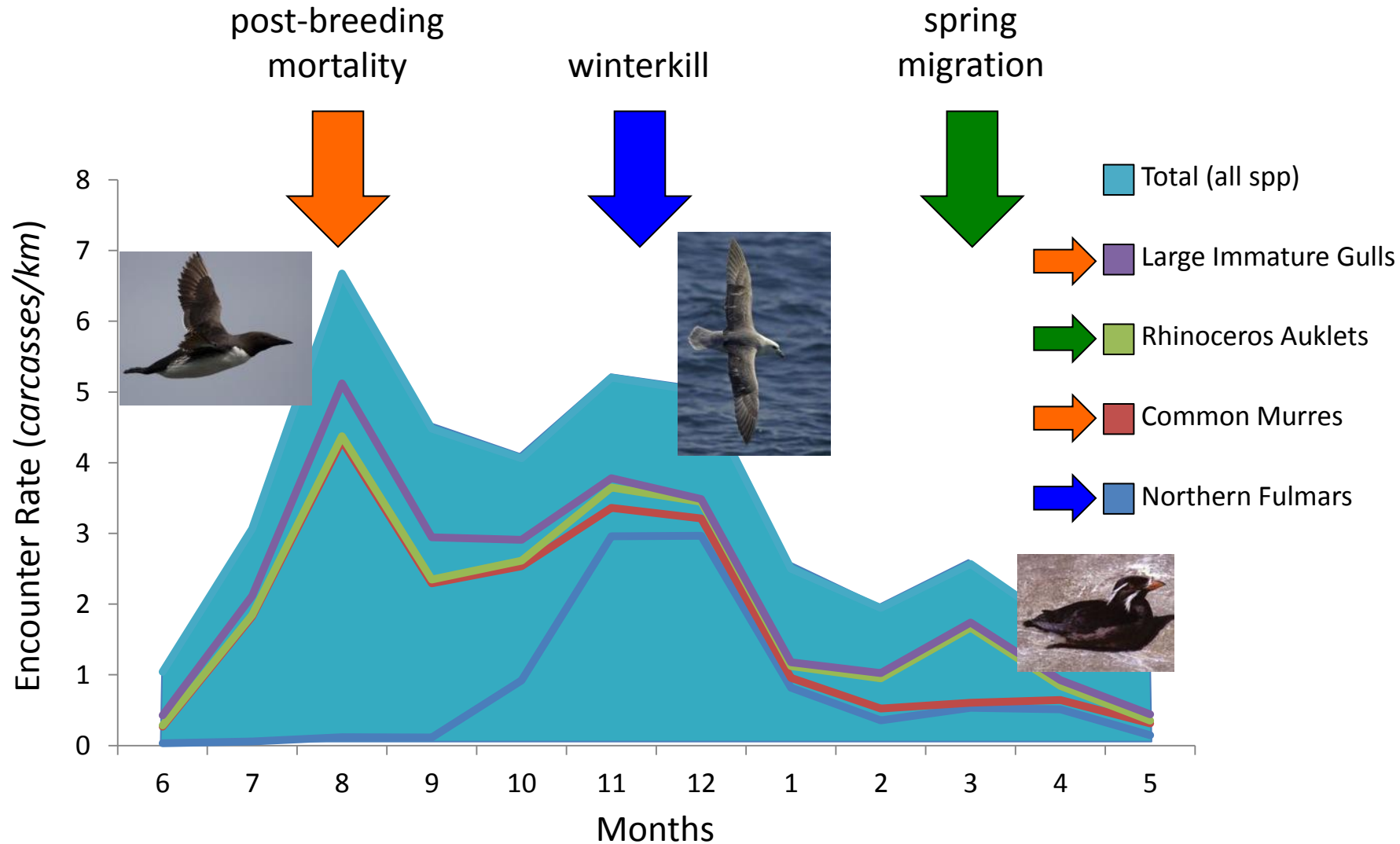


*wing: wrist to tip of
longest primary*



foot: ankle joint to knuckles

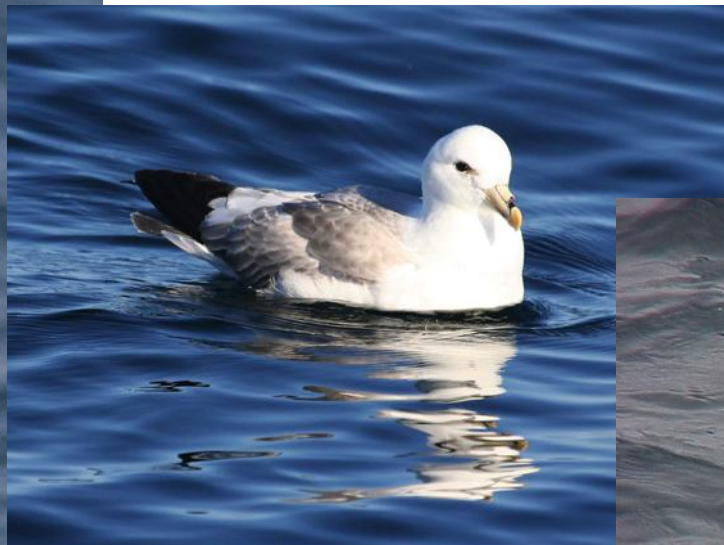
Natural History of Dead Birds

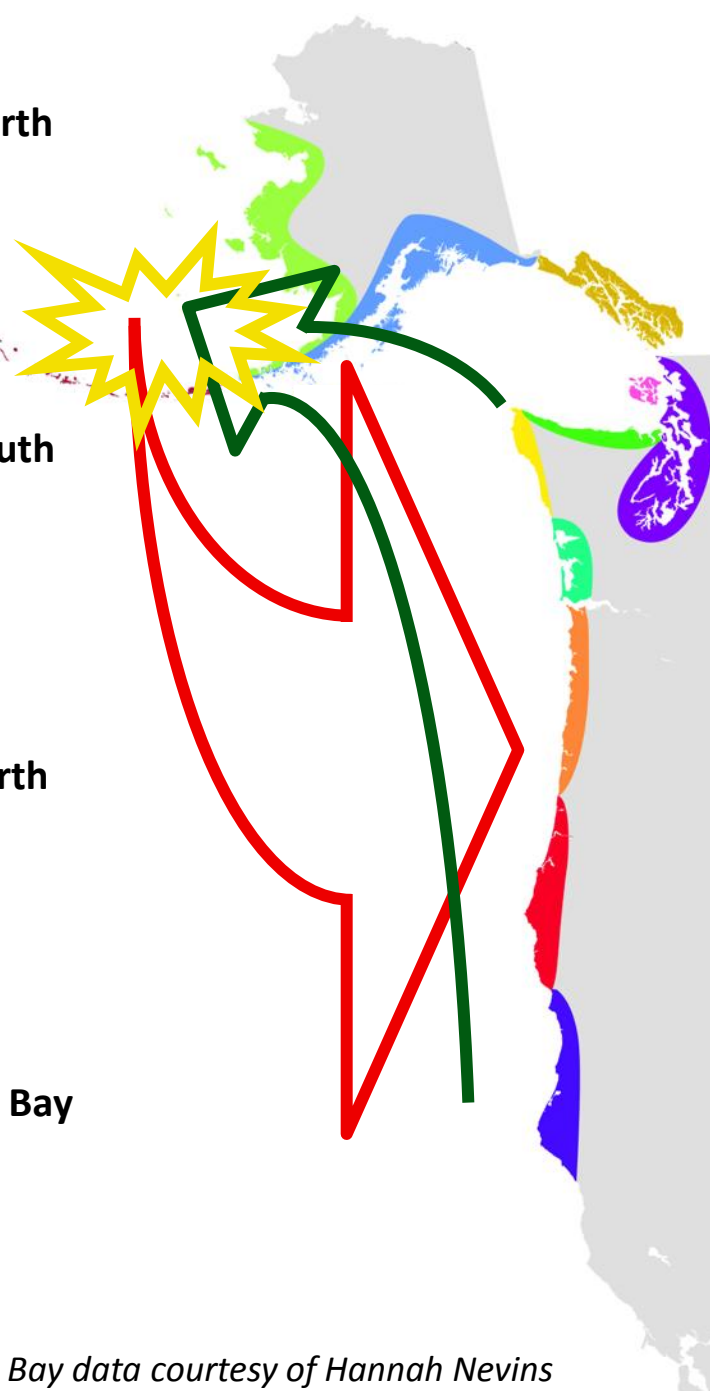
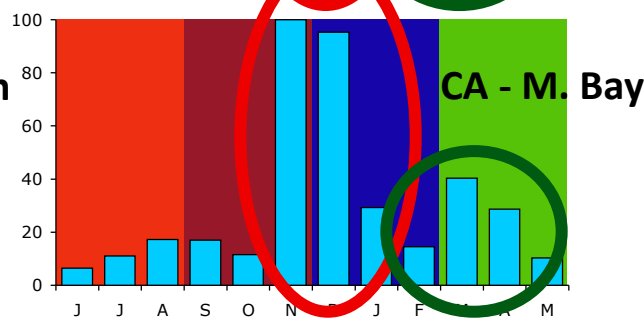
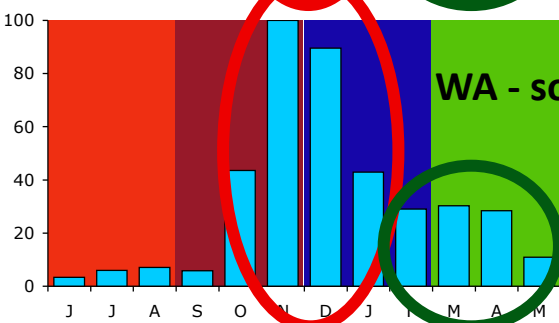
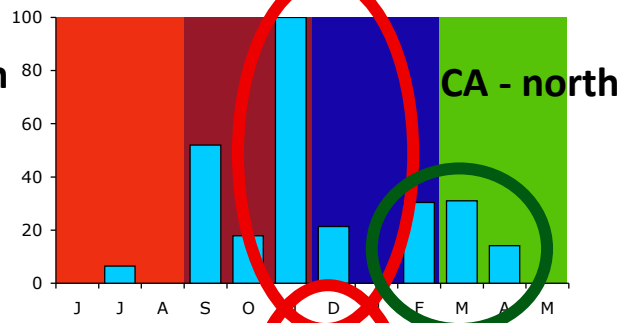
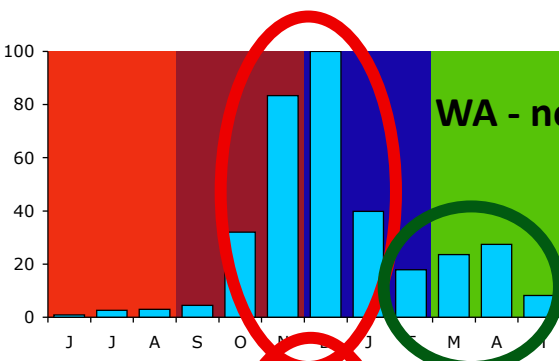
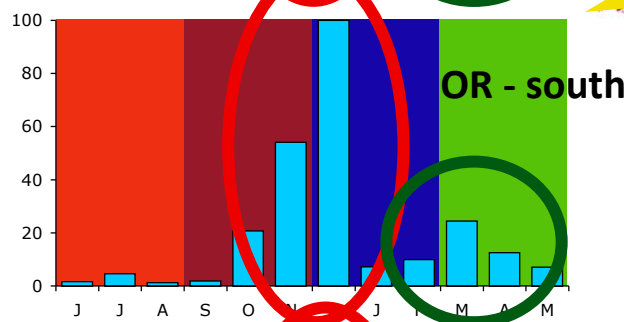
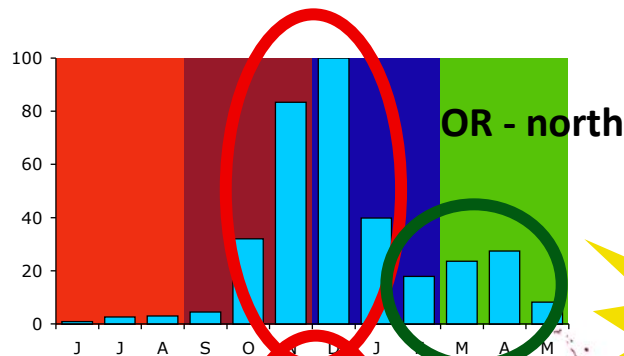
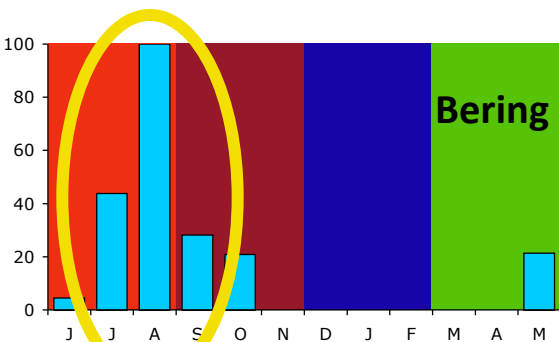


“Local Breeders” – breed and die (wreck at home)

“Migrators” – breed, migrate, and die (wreck when you get there)

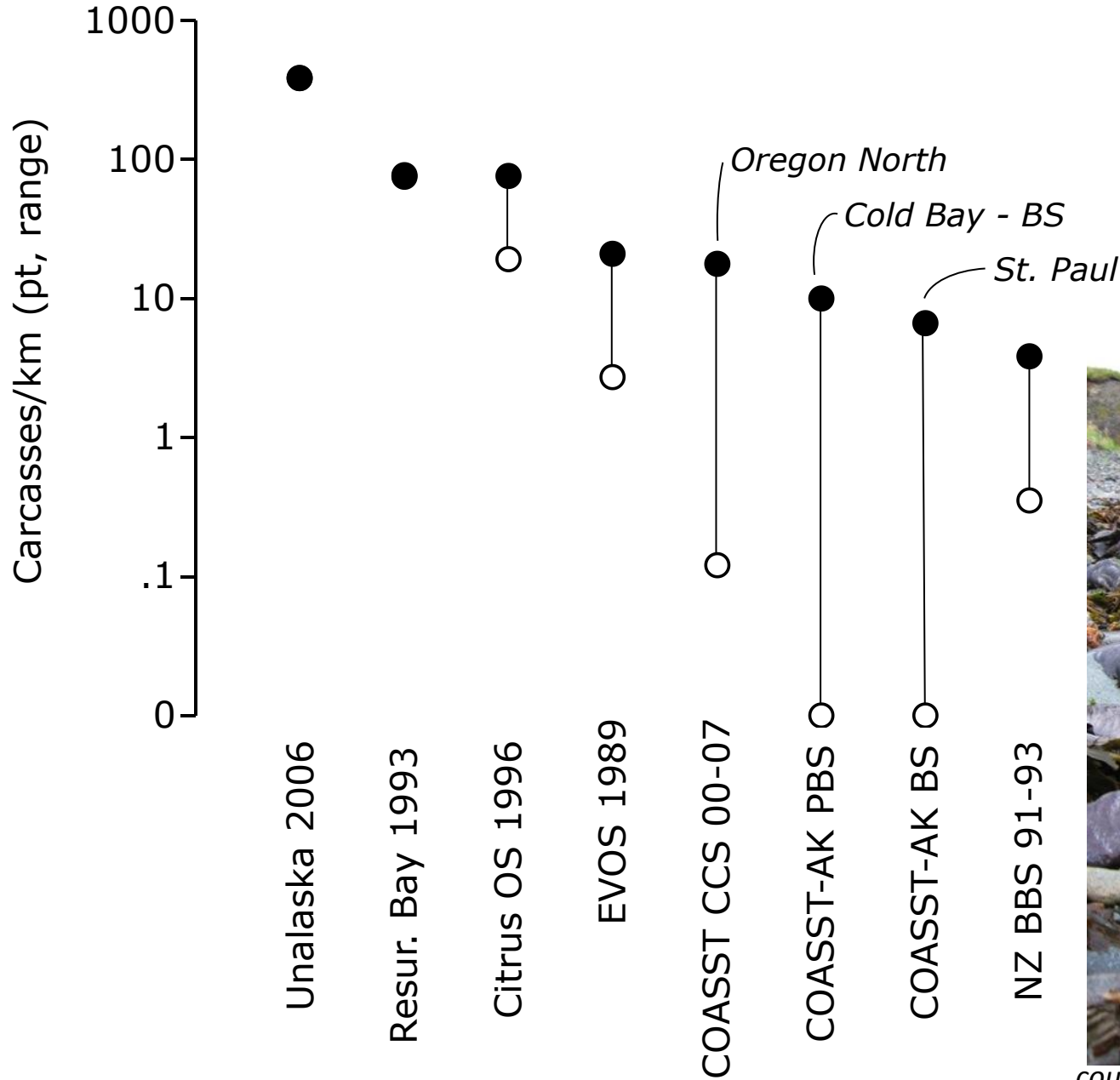
So What? establishing a
baseline





Monterey Bay data courtesy of Hannah Nevins

Baselines vs Catastrophes



courtesy of Reid Brewer, AK Sea Grant

Wrecks (e.g. murre, February 2012, Seward)



Oil (e.g. COLO April 2011, Juneau)

#1	H	N	N	U	U	B	2	W	N	Y	-	-	35	85	COLO	u	N	u	
COMMENTS: BP-1/2 oil covering breast; and 2 wings heavy appears to be some kind of petroleum on breast (like tar) all appears to be some kind of petroleum on breast (like tar) not sure it was the tarsus. Found on upper breast, head, feet, beak, wings.																			
		Tag ID#		COLOR		SEQUENCE		WHERE		TAGGED									
		20		Orange		White		Upper wing											



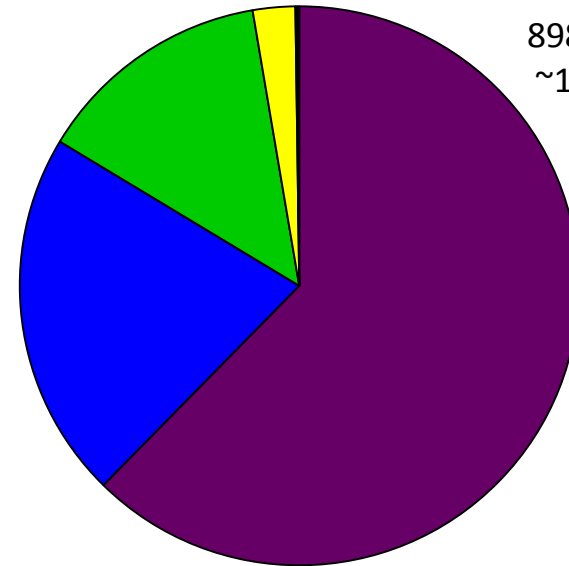
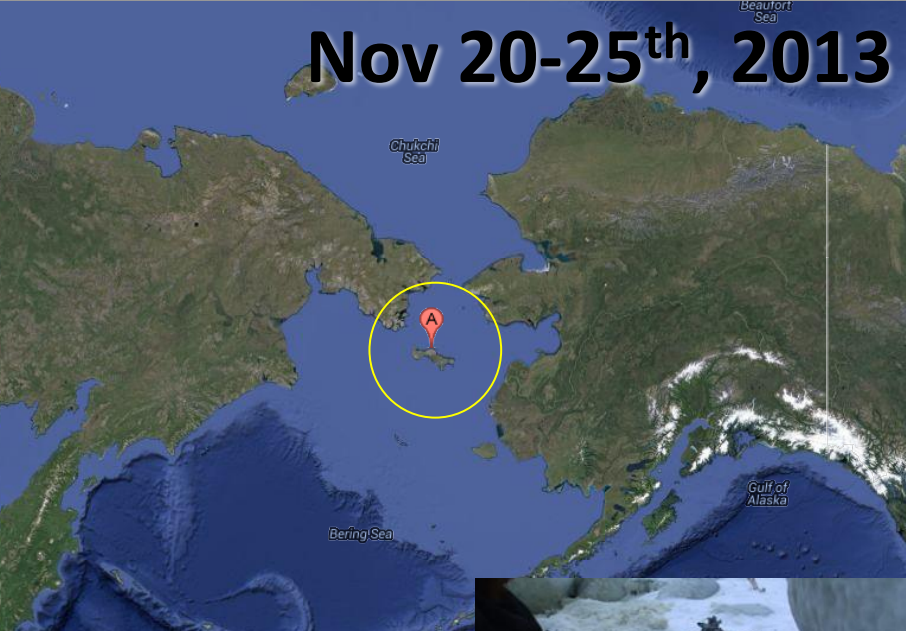
Entanglement (e.g. BLKI Aug 2010, Homer)

Bird # of day	WF	R	C	FC	E	BP	EN	O	FOOT TYPE	BILL (mm)	WING (cm)	TARSUS (mm)	SPECIES	A	P	SEX	# OF PHOTOS
6	Hw	N	N	S	G	I?	L	N	3W 4H	39	29	32					5
COMMENTS: Kittiwake? Feet Entangled in Lots Fishline																	
Bill - Blacktip / yellow Bottom																	
										Tag ID#	COLOR SEQUENCE		WHERE TAGGED				
										111	140	RRR		Rt W			



Nov 20-25th, 2013

Wreck on St. Lawrence Island

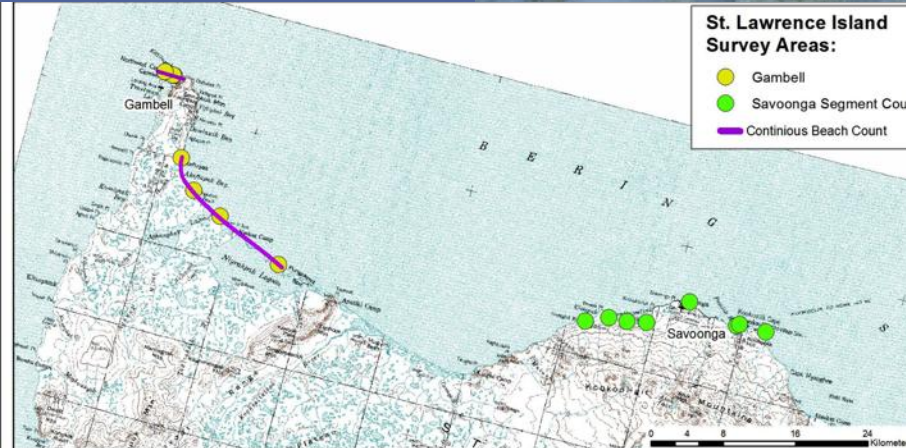


898 carcasses found
~18.5 km shoreline

- Crested Auklet
- Murre Spp.
- Unid. Bird
- Gull Spp./ N. Fulmar
- Spectacled Eider
- Duck Spp.

confirmed case of avian cholera

COASST protocols used to collect carcass data
COASST estimations of “carcass fall”:
6288-6825, ranging up to ~38K

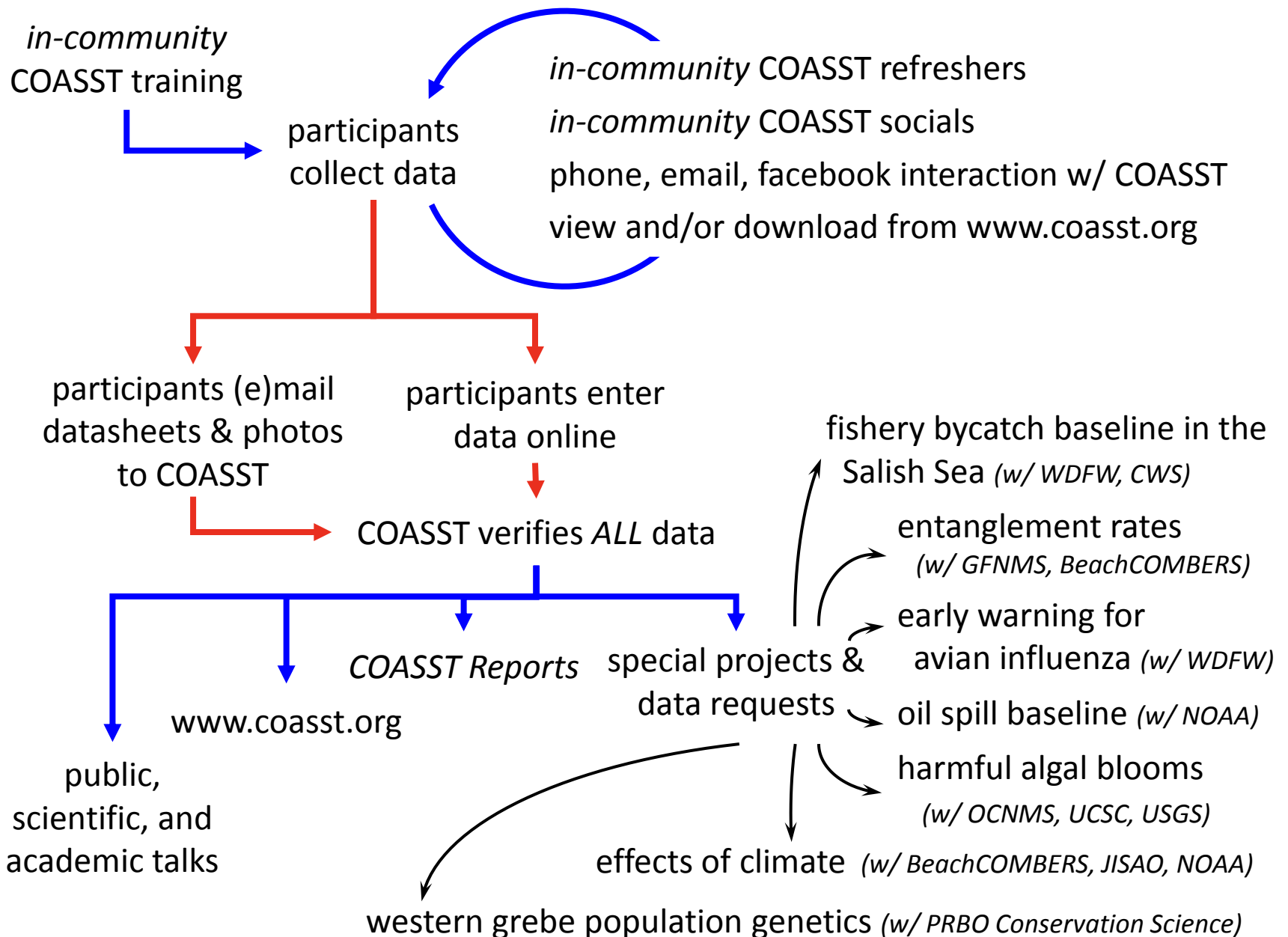


data, maps:
Kathy Kuletz, David Irons, Liz, Labunski

Spectacled eiders winter in polynyas in the Bering Sea south of St. Lawrence Island, Alaska

USFWS

How Does COASST Work?



LEO and COASST



ALASKA NATIVE TRIBAL HEALTH CONSORTIUM
leaders in life care

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Local Environmental Observer (LEO) Network

Northern communities are changing due to environmental impacts, climate change and development. Monitoring the environment is important for understanding the risks and benefits and for adaptation. The LEOs are the eyes, ears and voice of environmental change in our communities.



[Click here](#)
Post an Observation



[Click here](#)
"Join LEO"

We are tribal professionals who apply traditional knowledge, western science and technology to document unusual plants and wildlife, extreme weather,

LEO May 2014



View LARGE: [click here](#)

Monthly Maps
May 2014

Category Maps
Air Quality

Alaska Region Maps
Aleutian & Pribilof Isl

Canada Region Maps
British Columbia

LEO communities at a glance, click icon: 

Related Pages
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- Invite COASST to conduct a training in your community.
- Come to a COASST training at the Alaska Forum.
- Adopt COASST materials when making observations for LEO – a future webinar?

How to find us:

COASST main office: info@COASST.org

Me! jparrish@uw.edu