

What does an Ethologist do?

-a personal view-

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Two hats

ETHOLOGY

- Disciplinary focus
- The study of animal behavior in natural habitats
 - Cause
 - Development
 - Evolution
 - Function

CONSERVATION BIOLOGY

- Interdisciplinary breadth
- Biodiversity stewardship
 - Animals
 - Habitat
 - People

ETHOLOGY

- Why study animal behavior?
 - Curiosity about the diversity of life
 - To better understand biological processes
 - To solve problems in human/animal interactions
- Some examples of studies
 - Causes of individual differences in geese
 - Reproductive behavior in wolves
 - Development of Weddel seals
 - Ethogram of sea otters

Geese

- Within a family of hand-reared goslings
- How do dominance relations develop?
- Do individuals have distinctive personalities?



Internship

- Undergrad
- With Dr. Konrad Lorenz- a father of ethology
- Max Plank Institute
- Seewiesen, Germany



Answers

- Families differed
 - Subtle respect
 - Cowardly bully
- Distinct personalities were recognizable
 - Intuitive
 - quantitative



Decision to become a scientist



Wolves

- Doctoral studies-
captive packs
- Drs. David Mech,
ecologist & Ulysses
Seal, endocrinologist
- Ecology and
Behavioral Biology
- University of
Minnesota



Why does only 1 female breed?



Answers

- Its not physiological
- Moms are more attractive
- Older sisters intimidate younger sisters
- Same for brothers



How does weaning occur?



Arctic- Ellesmere Island



Camp below the wolf den



Answers

- 5 wks- pups leave den
- 7-8 wks- adults deliver solid food
- 9-10 wks- pups suckle less frequently
- 11 wks- weaned pups follow adults



No conflict



Wolf Denning- Yellowstone



Volunteer Observation Teams

- Linda Thurston, graduate student & Dr. Doug Smith
- 4 packs
- 2 years
- May-June



Who cares more, Mom or Dad?

- Depends on the family, pup age & the year
- Dad feeds Mom up to 3 wks, then
- Both hunt
- Deliver food



Weddel seals- Antarctica

- Dr. Don Siniff, University of Minnesota



Hostile environment



Pup weight gain

- 36 lbs at birth
- 300 lbs at 6 wks
- All from milk
- Food far away



Sea Otters - Alaska



Ethogram

- Dictionary
- One species
- Meaning of action patterns
- With Chris Ribic, Dr. Siniff



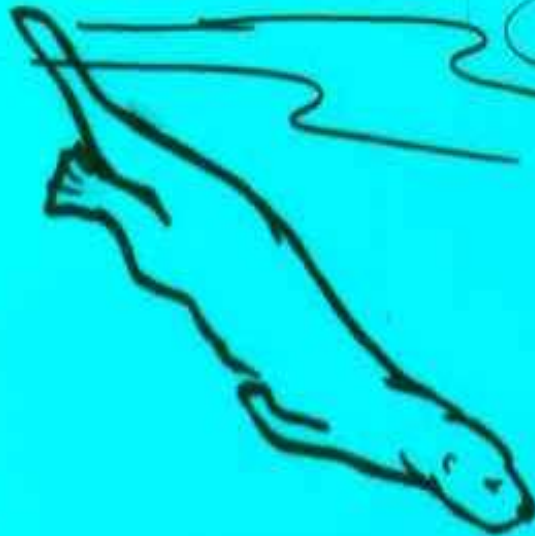
REST



ROCK



FLOAT



PERISCOPE



FEED

SUBMERGED

EAT, POUND

CONSERVATION BIOLOGY

- What is it?
- Examples of studies
 - Manatee distribution in Florida & Belize
 - Illegal pet trade - parrots in Mexico
 - Mexican wolf recovery
 - Puma attacks in Big Bend National Park

Familiar perspective

Wildlife Management

- wildlife populations
- habitat for wildlife
- human dimensions



Another way of looking at it

Conservation Biology:

integrate social/ biological perspectives

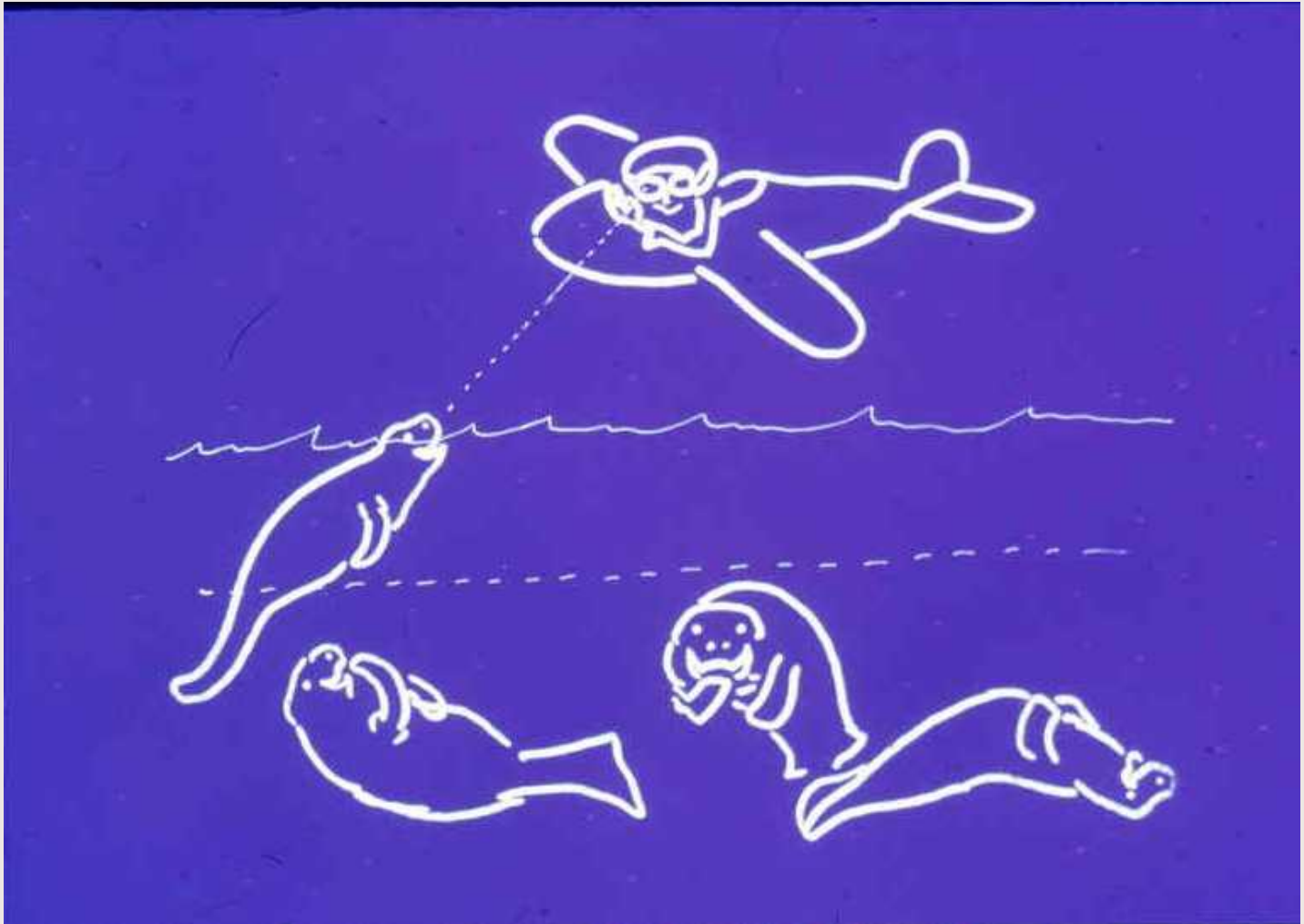
- species at risk
- biodiversity health assessment
- cultural values at risk



How many manatees in FL?



Problem- counts in murky water



Cluster at warm water sources



Manatee Distribution in Belize

- Caryn Sullivan- grad student (offshore)
- Nicole Auil- grad student (coastal)



Amazon parrots- Mexico



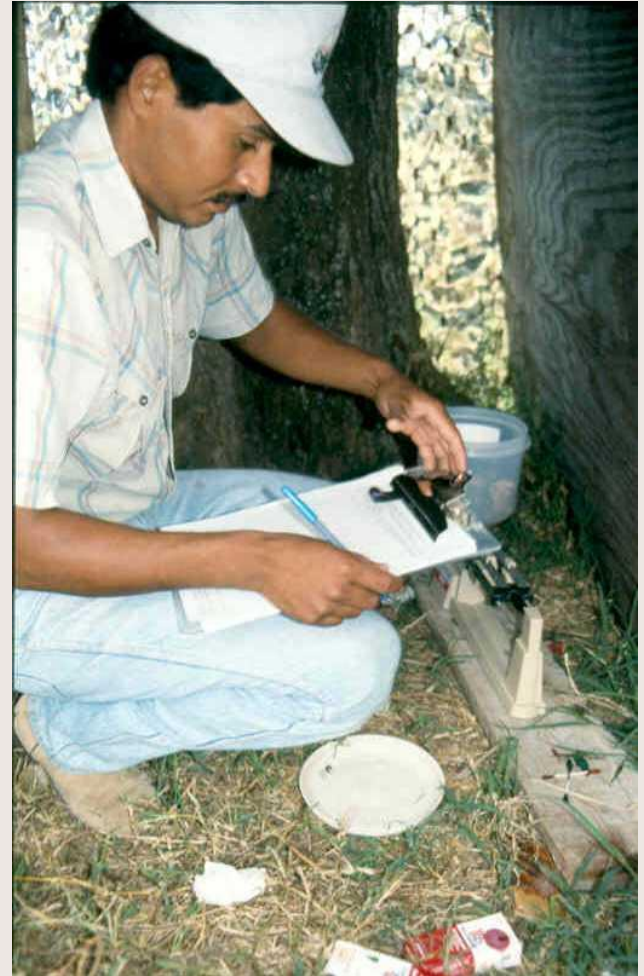
Illegal take from nests

Ernesto
Enkerlin,
PhD



Sustainable harvest

- Chick growth rates
- Natural diet
- Fledging success
- Protect cavities
- Enforcement problem

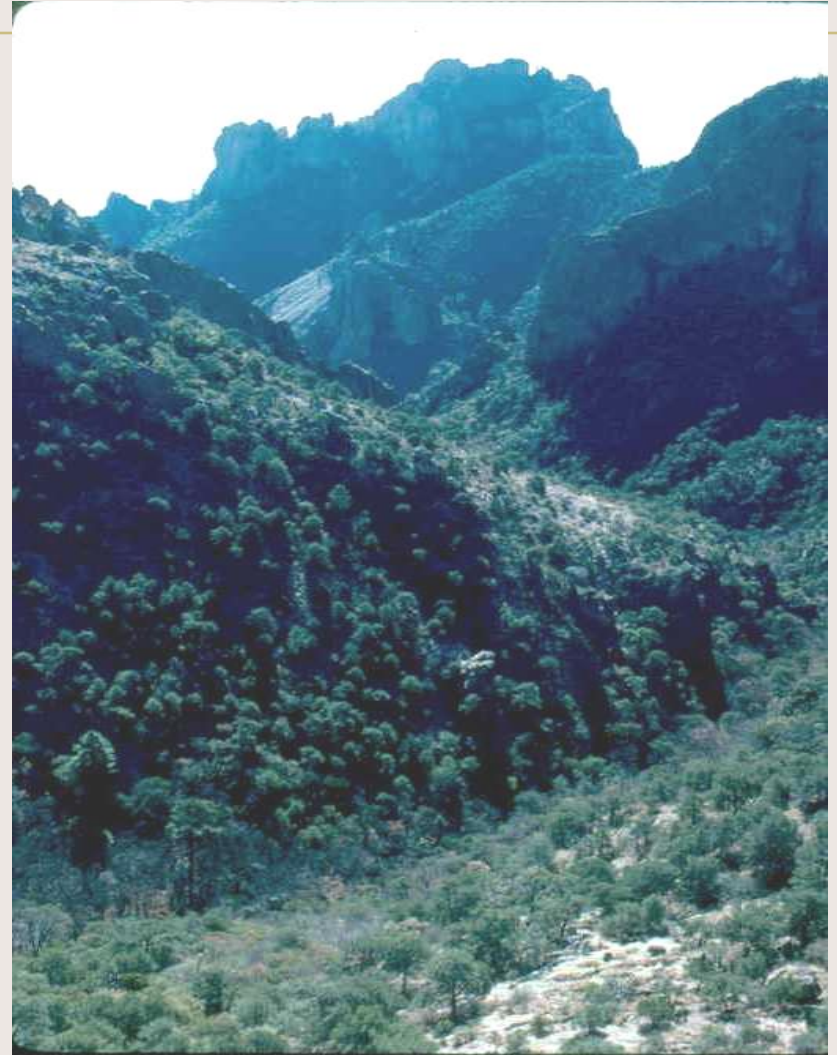


Wolf recovery- people problem



Puma- Big Bend National Park

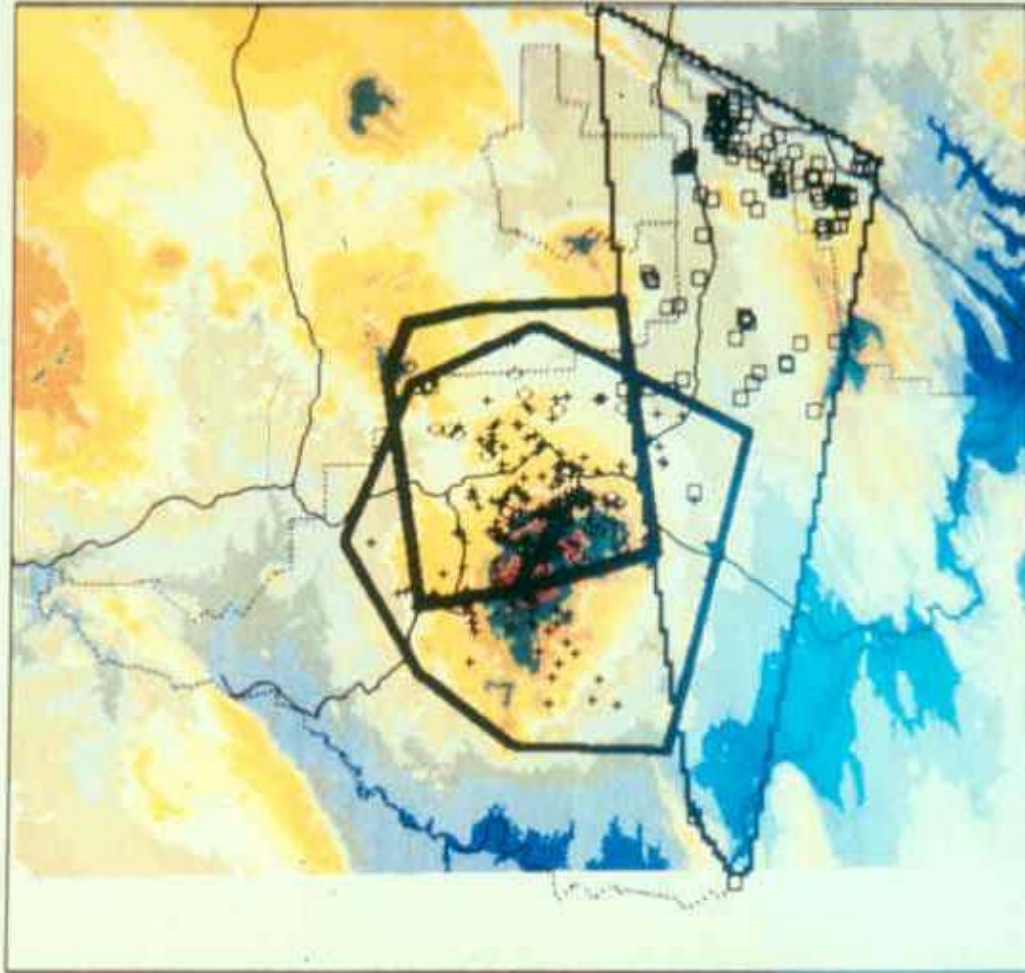
- Toni Ruth, MS
- Attacks on hikers
- Chisos habitat
attractive to pumas
and humans



Puma den



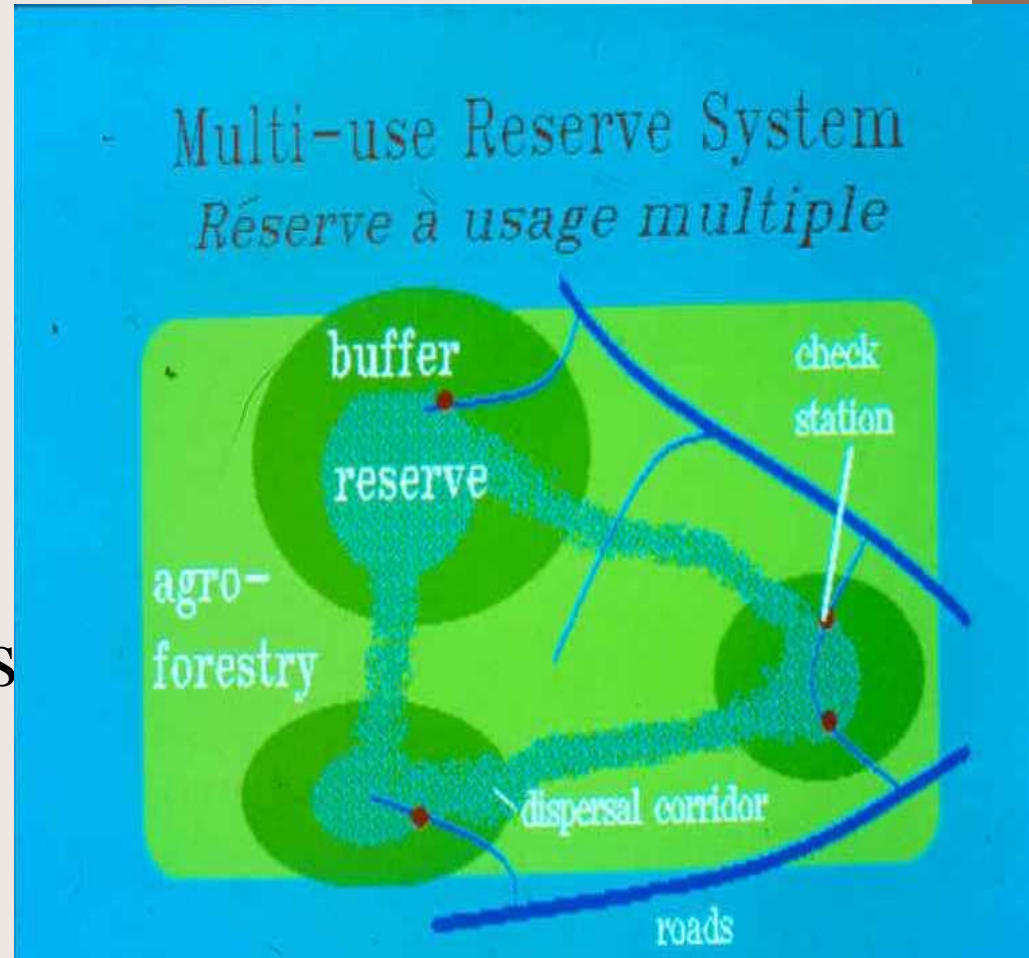
Males range out of park



ELEVATION IN FEET CONTINUED

Fragmented islands of habitat

- Big Bend only supports 20-30 puma
- Bringing home lessons from abroad
 - Educate hikers
 - Work with ranchers



Interdisciplinary cooperation

Biodiversity Stewardship

Community	Local	Regional	Global
Landowners	private "ranches"	public lands	biosphere reserves
Scientists	consultants extension	government universities	international agencies
Species	demes in habitat mosaics	populations in bioregions	migratory fauna, biomes

Reasons to study behavior

- Fascination with diversity of nature
- To better co-inhabit the planet with other species: positive problem solving
- To reflect on what it means to be human

How can I do this?

- Careers in behavior or Conservation Biology
 - Teaching/research at universities
 - Research in government labs
 - Behavioral management in zoos/aquaria/parks
- Behavior in other careers
 - Wildlife and refuge managers
 - Government regulatory agencies
 - Non-governmental conservation organizations
 - Veterinary medicine- exotic and domestic

How do I get started?

- Choose appropriate courses (WFSC 422)
- Volunteer for projects (jobs boards)
- Arrange for internships (WFSC 484)
- Do an independent project (WFSC 485)
- Develop a network of contacts
- Join professional organizations (ABS, SCB, TWS)
- Start a career binder to get a job or a position in graduate school (WFSC 481)