Endangered Species
“Missing Person” / “Have You Seen Me” Poster

MISSING
JUSTIN JOHNSON

MISSING FROM: Vanceburg KY
DATE MISSING: March 23, 2017
AGE: 28
HEIGHT: 6’2”
WEIGHT: 145 Pounds
HAIR: Short Brown

Justin was last seen wearing a black tee-shirt, light blue jeans, dark brown work boots, and camo cap. He had a black jacket with him. His S-10 pick-up was found near Garrison KY.

Can You Help?
Please Call The Lewis County Sheriff
606-796-2912

CALLERS MAY REMAIN ANONYMOUS AND
INFORMATION WILL BE TREATED CONFIDENTIALLY

MISSING
HAVE YOU SEEN MY HUSBAND?
STEPHEN RYAN EVANS

AGE - 35
EYES - BROWN
HAIR - GREYISH BROWN, RECEDING HAIRLINE
HEIGHT - 6’1” TALL
WEIGHT - 140-155 LBS.
THIN BUILD & BROAD SHOULDERS
MARKS - TRIBAL TATTOO ON THE ANKLE & SKULL TATTOO W/ STEVE ON HIS ARMS

PLEASE HELP US
Our family & friends are looking for him. If you have any information concerning his whereabouts, please let him know that his family needs him back and contact the Burbank Police Department ASAP at 818-239-3000 or the FBI at (310) 477-6565.

DEAREST STEVE,
If you’ll see this post, please call me or your mom. Reach out to anyone to let us know that you’re ok. We love you & we miss you so much. We need you to come home because our little buddy is asking for you & telling me, “I want my Daddy.”
Love,
Thara

http://www.facebook.com/LetBringSteveHome
Loss of Biodiversity

Causes of biodiversity loss: HIPPCO
• H: habitat destruction
• I: invasive species
• P: population growth
• P: pollution
• C: climate change
• O: over exploitation
Conservation Biology

Conservation biology is the management of nature and of Earth's biodiversity with the aim of protecting species, their habitats, and ecosystems from excessive rates of extinction and the erosion of biotic interactions.

- Large, un-fragmented habitats
- Better to preserve intact habitats than to focus on single species at a time
  - *in situ* conservation (on site) – parks, preserves, areas of high biodiversity (preservation and restoration)
  - *ex situ* conservation (off site) – captive breeding programs, seed storage of diverse plant crops
Habitat Fragmentation
Habitat Corridors: Solving Fragmentation
Lab: Theory of Island Biogeography
Theory of Island Biogeography

Species richness in isolated areas (islands) affected by:
1. distance from mainland
2. size of isolated area
What does this mean for conservation biology?
Protected Area Planning
Loss of Biodiversity

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Invasive Species

- lack normal predation control or other limiting factors
- natural or human introduced
- degrading existing/normal habitats
- reducing biodiversity
  - Either entering a currently-unfilled niche
  - Or...outcompeting an existing species for its niche (niche overlap)
- adding new diseases
- not all non-native species become invasive or are bad: ornamental, crops, farm animals
Noteworthy Invasive Species
1. Air Potato
2. Asian Carp
3. Kudzu
4. Burmese Pythons
5. Giant African Snails
6. Zebra Mussels
7. Emerald Ash Borer
8. Mediterranean Fruit Fly
9. Lionfish
10. Cane Toads
Sunday Morning News Story (10:00): https://youtu.be/mUssO68D2eM
Many island species have evolved to be specialists versus generalists because of the limited resources, such as food and territory, on most islands. The long-term survival of specialists may be jeopardized if and when invasive species, typically generalists, are introduced and outcompete the specialists.
On Guadalupe Island, Mexico, there are thirty-four plants found nowhere else on Earth—almost all of them endangered because feral goats decimated the landscape. The island was once covered with forest, but by 1948, the forest was down to only 1% of its former extent. Scientists put up fences to exclude goats from certain areas, and the results were dramatic.