Basic Reptile Rehabilitation
Identification

• Know your local species
  ➢ Visit and work with nature centers
  ➢ Hike/get out in the field
Identification

• Know your local species

Male Three toed box turtle
Identification

Know your local species

Who is this???
Identification

Blanding’s turtle
Identification

• Know your local species
  ➢ Study resources: see resource handout
  ➢ Take part in herptile counts
Identification

• Sexing the patient

➢ Turtles-males longer, wider tails and cloacal opening is beyond edge of plastron
  ✔ Aquatics- males also have longer front nails
  ✔ Box turtles- males also have a concave plastron and brighter red irises

Female+ male three-toed box turtles

Male and female three-toed boxes
Identification

• Sexing the patient
  ➢ Snakes- probe vent w/ snake sexing probe or tom cat catheter
  ➢ Only for experienced handlers
  ➢ Females measure 3-4 ventral abdomen scales and males measuring 5- and up
Identification

• Sexing the patient
  ➢ Lizards-males have enlarged femoral pores and are often larger and brighter

Femoral pores                  Crevice spiny
Identification

- Sexing the patient
  - May need to provide a nesting box
  - May need to salvage eggs from a euthanized female
Identification

• Be ready for common seasonal species
• Know and discuss endangered and threatened species cases with DNR
• Meet your DNR herptile specialist
• Venomous herptiles
Handling and transport

Cover heads and carriers whenever possible to minimize stress

Lizards

- Transport in a critter carrier or Rubbermaid type container
- Handling: grasp behind neck and support rest of body
Handling and transport

• Turtles
  ➢ Transport in buckets or Rubbermaid type container
  ➢ Use shields or plunger for snappers
  ➢ Place on cup or other appropriate container to place turtle on

Florida box turtle - male
Handling and transport

- Turtles

  - Handle on either side of carapace (snappers, use extreme caution!)
Handling and transport

Snakes

• Transport:
  ➢ in pillow case or Rubbermaid type container

• Handling:
  ➢ large or aggressive snakes use gloves or towel, if needed grasp behind head and support the body
  ➢ Small or non-aggressive snakes support whole body and let move freely
Handling and transport

• Snakes-handling

Juvenile fox snake

Ball python
Exam and record keeping

- Use a check in/record sheet and be accurate: see check in sheet handout
- Use a systematic exam technique that is the same each time
- Get weights on everyone
Basic Amphibian Care

• Use non-bleached white paper towels for substrate
• Keep at 65-72 degrees and 75-95% humidity until researched species
• Use water aged at least 24 hours with no top in container
• Provide hide box
Husbandry

• Housing:
  - Turtle tub
  - Snake enclosure
  - Pools, cement mixing tubs, water troths, tanks and home made enclosures
Husbandry

- Housing

Water troth

Amphibian enclosure
Husbandry

Lighting

- Natural, full spectrum bulbs (UVB+UVA) like Zoo-med brand
  - Have no more than 12 inch away from patient and change bulb after 1 year of use
  - Use a timer to have lights go off in 12-14 hours
Husbandry

- Heating
  - Submersible heaters, heat lamps, ceramic heat emitters and under tank heaters
Husbandry

Nutrition

• Live, frozen, fruits and veggies, commercial foods and supplements

• Enrichment
  ➢ Stimulation, reduces stress and increase wellbeing
Husbandry

• Cleaning
  ➢ Use chlorhexidine diluted 8oz/gal, only use for 1 week after mixing
  ➢ Use diluted beach 1/2 tbsp/gal with cool water and let dry, for supplies in between patients
Common reasons for herptile rehabilitation

- Hit by car injuries
- Lawn mowers and weedwackers
- Dog and cat attacks
- Displaced: need short relocation or over wintering
- Fish hooks
- Human abuse: the public needs to be educated
Common reasons for herptile rehabilitation

• Take time to educate!!!

Lydia releasing a garter snake
You need to find and work with a reptile veterinarian

• Why is this so important?
  ➢ To get prescription medications with the correct does
  ➢ Humane euthanasia
  ➢ Surgery
  ➢ Radiographs: gravid? fractures?
  ➢ Share knowledge and resources
  ➢ See: Association of Reptile and Amphibian Veterinarians @ www.arav.com
Why you need a reptile vet

• Radiographs
Why you need a reptile vet

- Radiographs

Fox snake

Gravid snapping turtle
Why you need a reptile vet

• Surgery
Common Treatments

• Fluids: Use Normasal or Plasma-lyte
  - Give 10ml/kg/day fluids warmed to 85 degrees
  - Give I.C. or S.Q.
  - Clean skin with dilute chlorhexidine, swab w/ alcohol and wipe dry
Common treatments

• Injections
  ➢ Antibiotics: Commonly used, Amikacin 50mg/ml give I.M. 1st dose give 5mg/kg then ½ dose every 72 hours for 5 treatments
  ➢ Pain meds: Commonly used, Meloxicam S.Q. 0.5-1mg/kg every other day for reptiles. For amphibians give 0.1-0.2mg/kg P.O. once daily.
  ➢ Vital E-A&D: 0.15ml/ kg give I.M. repeat in 3weeks
Common treatments

• Soaks

➢ Diluted betadine and medication soaks are often used for herptiles with wounds and fungal infections
Amphibian abrasion protocol

- Diluted betadine soaks for 10 minutes once daily, then rinse
- Gentamicin opth. Drops 1 drop to abrasion twice daily
- Metacam P.O. once daily
- Silver sulfadiazine cream 1% apply to abrasion once to twice daily, can also use on shell fractures
Common treatments

• Shell fracture stabilization
  - Use white medical tape across fracture site to pull in
  - Use super glue on ends of tape only
  - Apply Tregaderm
Common treatments

• Shell fracture repair
  ➢ No longer use fiberglass patches
  ➢ Use super glue to position tie mounts in place
  ➢ Cover with Devcon 2-ton epoxy.
  ➢ Pull together with zip ties
Common treatments

• Shell fracture repair
  ➢ See failed technique
Common treatments

- Flushing wounds
  - Warm flush to 85 degrees
  - Use sodium chloride fluids
  - Use eye protection, gloves and mask
  - Use 60ml syringe with a 18 gauge needle
  - Apply sterile lobe to open tissue to keep moist
Common treatments

• Wound flushing
Common treatments

• Wound flushing

Box turtle with maggots
Common treatments

• Post mortem egg removal and salvaging
  ➢ Saw open shell on turtles at bridges if needed
  ➢ Use scalpel to cut all around plastron for removal
Common treatments

• Post mortem egg salvaging

Push eggs from oviduct after opening
Common treatments

• Post mortem egg salvaging
  ➢ Set up incubator
  ➢ Place eggs in moist vermiculite at 82-85 degrees
Common treatments

• Baby painted turtles - 60 days incubation
Euthanasia

• See acceptable methods in the Minimum Standards for Wildlife Rehabilitation
  
  • Use Sodium Pentobarbital (sleepaway)
Euthanasia

• Reptiles: 0.8ml/1# I.C. or I.V.
• Amphibians: >100mg/kg P.O. or I.V.
  ➢ Snakes and lizards- 2 or more inches above vent
  ➢ Turtles into coelom from hind leg opening
Euthanasia

• Don’t make the decision alone

Blind blanding’s turtle  Intracoelomic injection for turtles
Release

• Release criteria
  ➢ Must be able to see and self feed
  ➢ To prevent disease transmission- Must have been kept isolated from other reptiles
  ➢ Genetic factors-they have evolved in response to local environmental factors, introducing could be detrimental
Release

• No later than 6 weeks prior to normal hibernation period
• At closest proximity to original site
• Not releasable if in rehabilitation longer than 1 year
• Use Google maps to find closest water
Questions?

• Questions or problems about herptile husbandry or veterinary care? Feel free to call Terri 920-915-1084. Email:tcassens@new.rr.com