

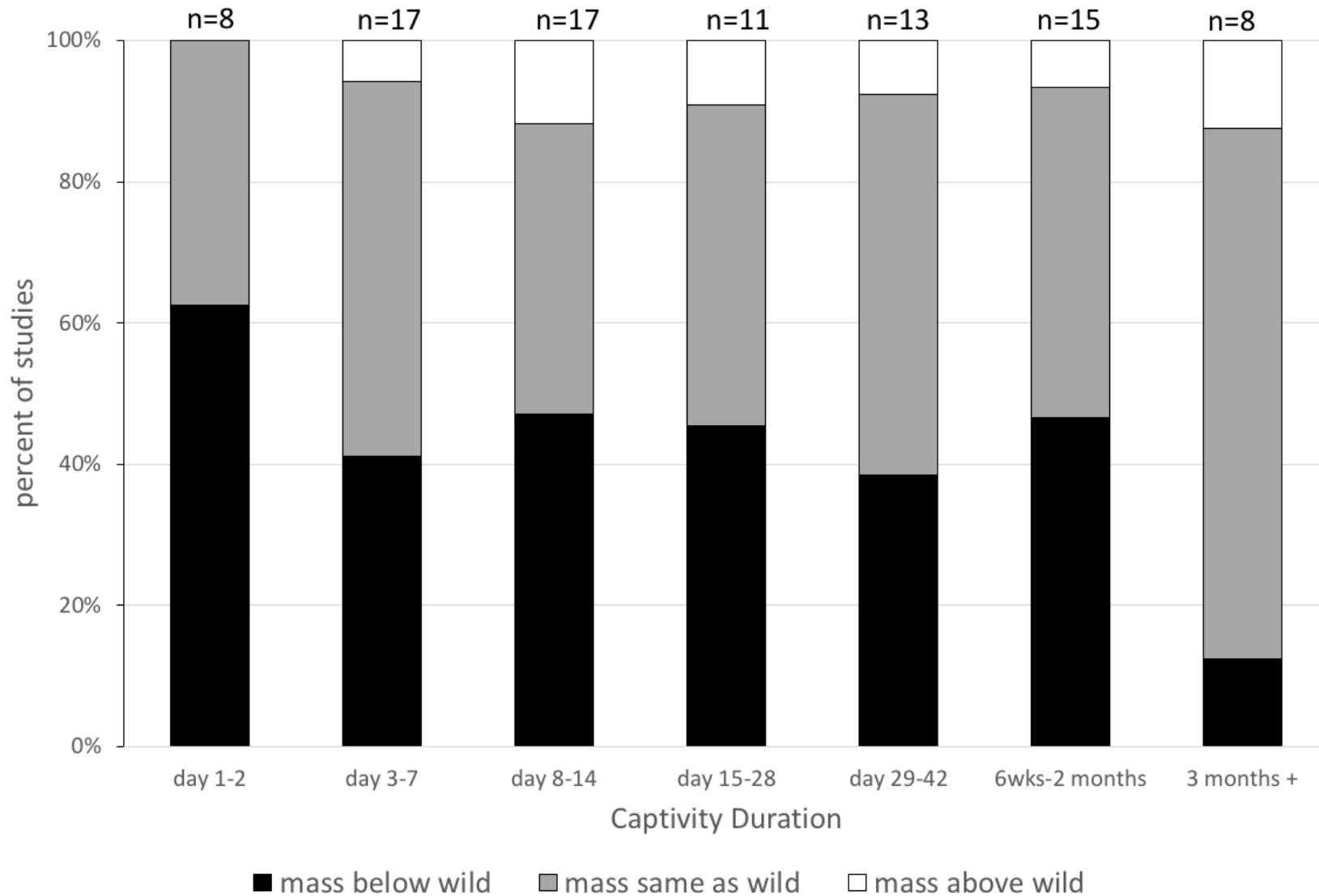
Challenges to wildlife adjusting to captivity – Negotiating with the IACUC

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Bringing Wild Animals into Captivity: A Novel Stressful Environment

How do the animals adjust?

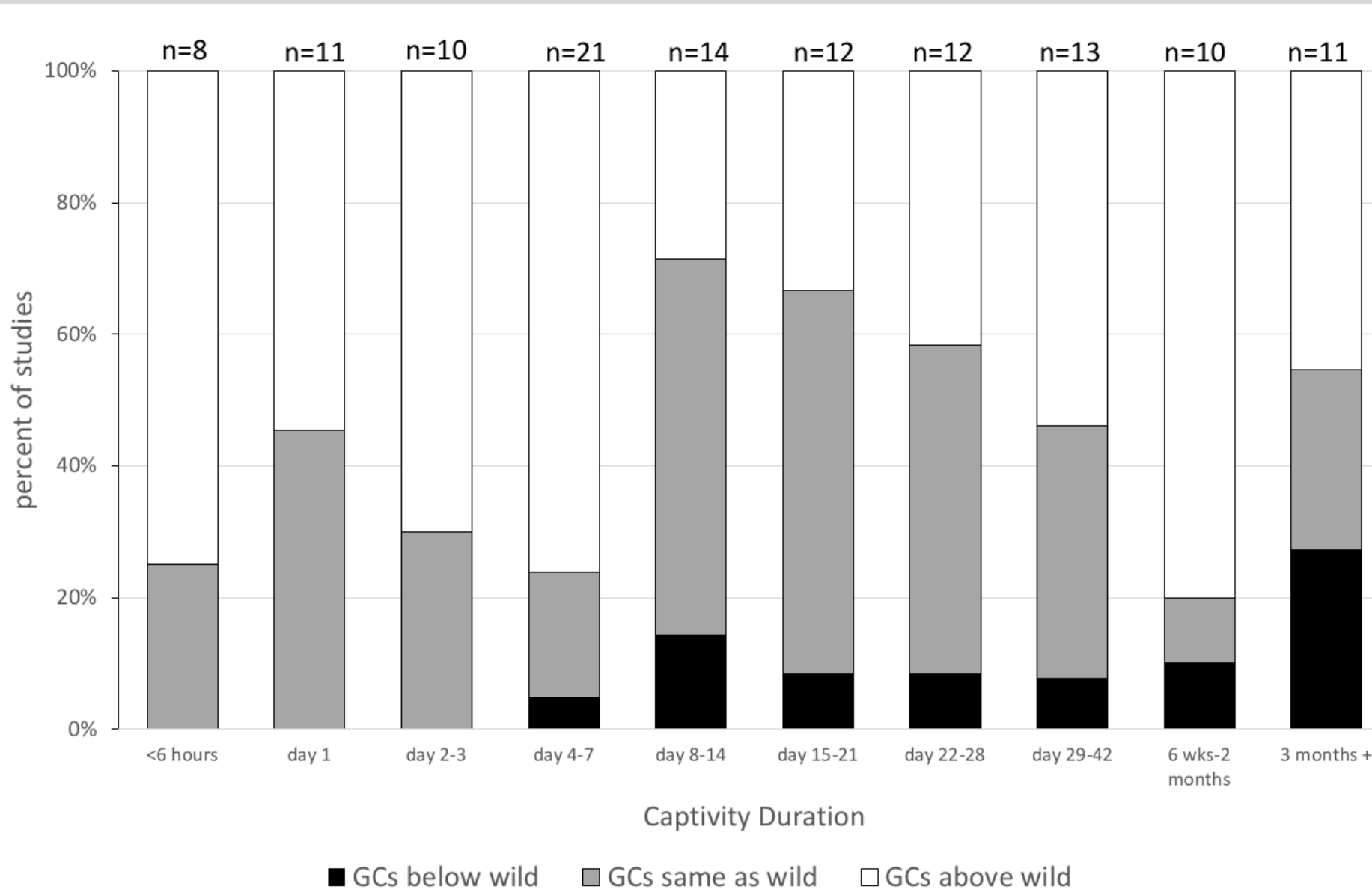
Unpredictable Changes in Body Weight



Take Home:

Species can both lose and gain weight when brought into captivity and may never recover

Acclimation Doesn't Always Occur



Take Home:

- Most species show long-term changes in stress hormones
- Suggests most species don't fully acclimate to captive conditions

Bottom Line:

- Captive Animals are physiologically different
 - From domesticated individuals
 - From their free-living congeners
 - Probably never completely adapt to captive conditions
- This creates challenges for IACUCs

Challenges with Sample Sizes

- Minimizing sample sizes not always appropriate
 - Patchy distributions with unpredictable trapping success
 - Studies often opportunistic
 - Capturing animals \neq ordering animals

Challenges with Sample Sizes

- More individuals often is better science
 - E.g., survival rates, movement patterns, reproductive outputs, yearly patterns
 - controlling variation vs. quantifying variation
 - Experiments that test hypotheses vs. describing populations

Bringing Wild Animals into Captivity: Housing Challenges

- Captive wild animals often more sensitive to housing conditions
 - Normal husbandry often stressful
- Requirements for live prey
 - E.g., fish that require live prey
 - Are the prey fish covered?
- Animals whose natural habitat is dirty
 - Sterile/clean environments not necessarily the best for the animals

Examples of Bird-Specific Husbandry Concerns

- Fluorescent light flicker rates
- Wooden vs. plastic perches
- Challenges keeping rooms clean when birds molt
- Use of gloves
- Training issues
 - e.g., surgical training often available only for rodents
 - Creating aseptic surgical fields with feathers

Summary

- Captive wild animals are not physiologically equivalent to free-living animals
- Individuals may or may not acclimate to captive conditions
- Species differ in housing needs and procedural requirements
- Taxon specific guides provide the best information available to IACUCs