

Behaviour

What is and what is not behaviour
Endocrine system
Hormone
Vasopressin

Levels of analysis - proximate versus ultimate

neural mechanisms
development
evolutionary origin/maintenance
Prairie vole

Natural selection
Infanticide, levels of explanation for
Hanuman Langur

Group selection/Individual selection
Hanuman Langur

Proximate and ultimate causation
White-crowned Sparrow

LEARNING

Bird song mechanisms
Beau Geste hypothesis
Great Tit

Learning again, definition, costs
Marsh Wren

Conditioning, operand conditioning
Skinner box
What can be learned
Norway Rat, Vampire Bat

LEARNING - continued

Observational learning
Imitation
Spatial learning
Hippocampus
Honey Bee
Corvids (crows)

Sex differences in spatial learning
Voles, cowbirds, humans

Imprinting
Greylag Goose

Nature versus nurture debate

Interactive theory of development

Genetic differences and behaviour

Blackcap
House Mouse
Drosophila

Neural control

Neural network
Herring Gull

Sign stimulus/releaser
Fixed action pattern
Innate releasing mechanism
Super normal stimulus
Code breaking

Mid-term exam content, continued

Code breaking
Cuckoo chick

Neural control basics

Neuron
Sensory neuron, Interneuron, Motor neuron
action potential
Neurotransmitter
moth ear

Central pattern generators
fixed action pattern
Stimulus filtering
Cortical magnification
Star-nosed Mole

Adaptive specialization in Neuronal control

Non-arbitrary specialization
UV sensitivity in vision
Birds and butterflies
Auditory skills, spoken communication, visual
humans

Fusiform gyrus

Navigation
Hippocampus again
Neural command center

Praying Mantis

Behavioural schedules

circadian (daily) rhythm
biological clock/environment cue

cricket

suprachiasmatic nucleus/per gene
Non-circadian

Naked Mole-rat

Lunarphobia

Banner-tailed Kangaroo Rat

Ancient Murrelet

Hormonal control

Hormone again
Testosterone
Reproductive behaviour, control of
Seasonality

birds

Adaptationist approach

Adaptation definition
Evolutionary lag
Pleiotrophy
Coevolutionary arms races
Comparative method

Adaptationist approach continued
Convergent evolution

Cost-benefit of aggregation

Butterfly mud-puddling

Optimality theory
heuristic

Quail covey size

Gazelle stotting

Optimal foraging

crow/whelk

Predator considerations

Game theory

When applied
selfish heard

penguins

Coloniality - group living

Information centre hypothesis

Osprey/gulls

Eusociality

Eusociality defining characteristics
castes
haplodiploidy
kin selection

Hymenoptera (ants, bees and wasps)

Termites (Isoptera)

Aphids (Hemiptera)

Thrips (Thysanoptera)

Crustaceans

Mammals

Habitat selection

Habitat (defining parameters: physical,
eco, social)
Home range

Piping Plover

Newfoundland Pine Martin

Atlantic Salmon

Source / sink habitats

Ideal Free Distribution

Side-blotched Lizards

Habitat selection, continued

Philopatry

Thick-billed Murre

inbreeding depression

Oldfield Mouse

Dispersal

Migration

Arctic Tern

Three-wattled Bellbird

Catharus thrushes
Red-eyed Vireo
Atlantic salmon
American Eel

Diel vertical migrations

Territoriality

exclusivity

Intra- versus inter-specific

floaters

Great Tit
Black-winged Damselfly
Yarrow's Lizard

evolutionary stable strategy

Resource-holding power'

Essay questions

Levels of analysis

Learning

Neural control

Optimality theory

Eusociality

Behavioural schedules

Migration-movement

“explain the major concepts within the subject, using example animal taxa and study results”