PROFESSIONAL PRESENTATION

Raptor Conservation

in Queensland, Australia

How birds of prey, habitat, prey and people are connected

Image: Wedge-tailed Eagle. Full sources and image credits in reference slide.

Core idea

Raptor protection works best when it protects whole hunting landscapes: nesting trees, prey, safe food chains and community stewardship.

Queensland focus

Rainforests • eucalypt woodlands • savannas • wetlands • farms • cities

Presentation route

1 → 2 → 3 → 4

Raptors 101

What makes birds of prey different

Queensland context

Habitats and priority species

Threat pathways

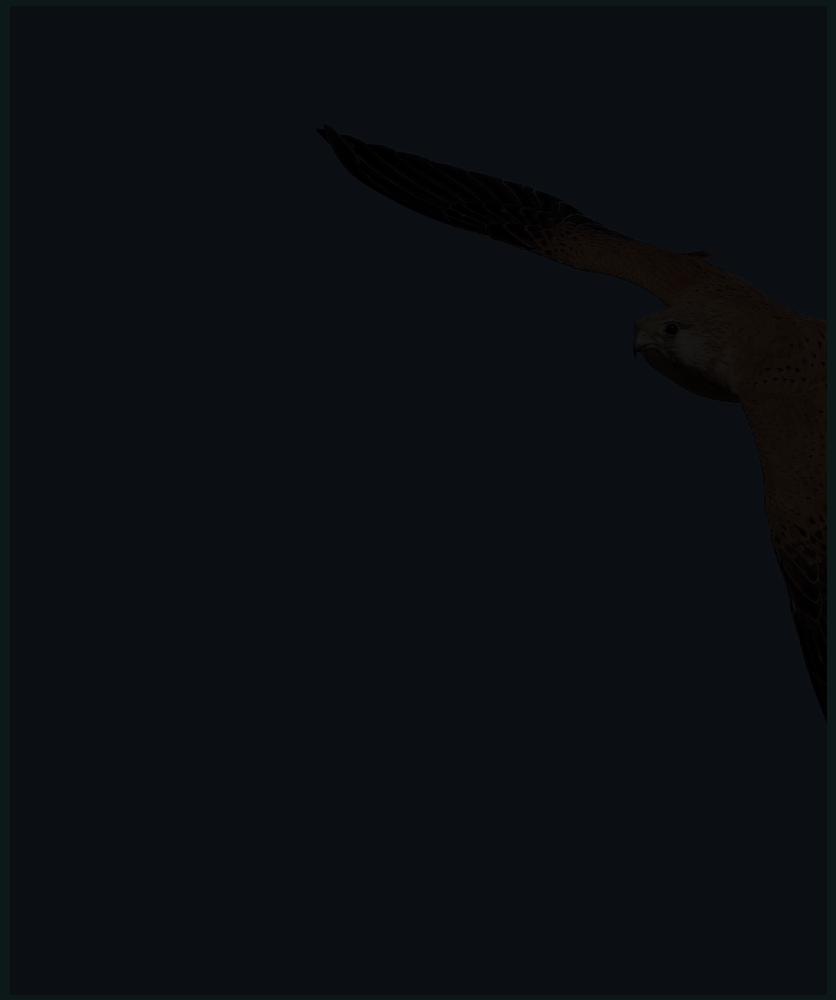
Clearing, poison, collisions and climate stress

Conservation action

Science, policy and community choices

Guiding question: how do we keep top predators in a changing Queensland landscape?

What are raptors?



Birds of prey built for hunting

Vision

spot movement at long distance

Talons

capture and grip prey

Hooked beak

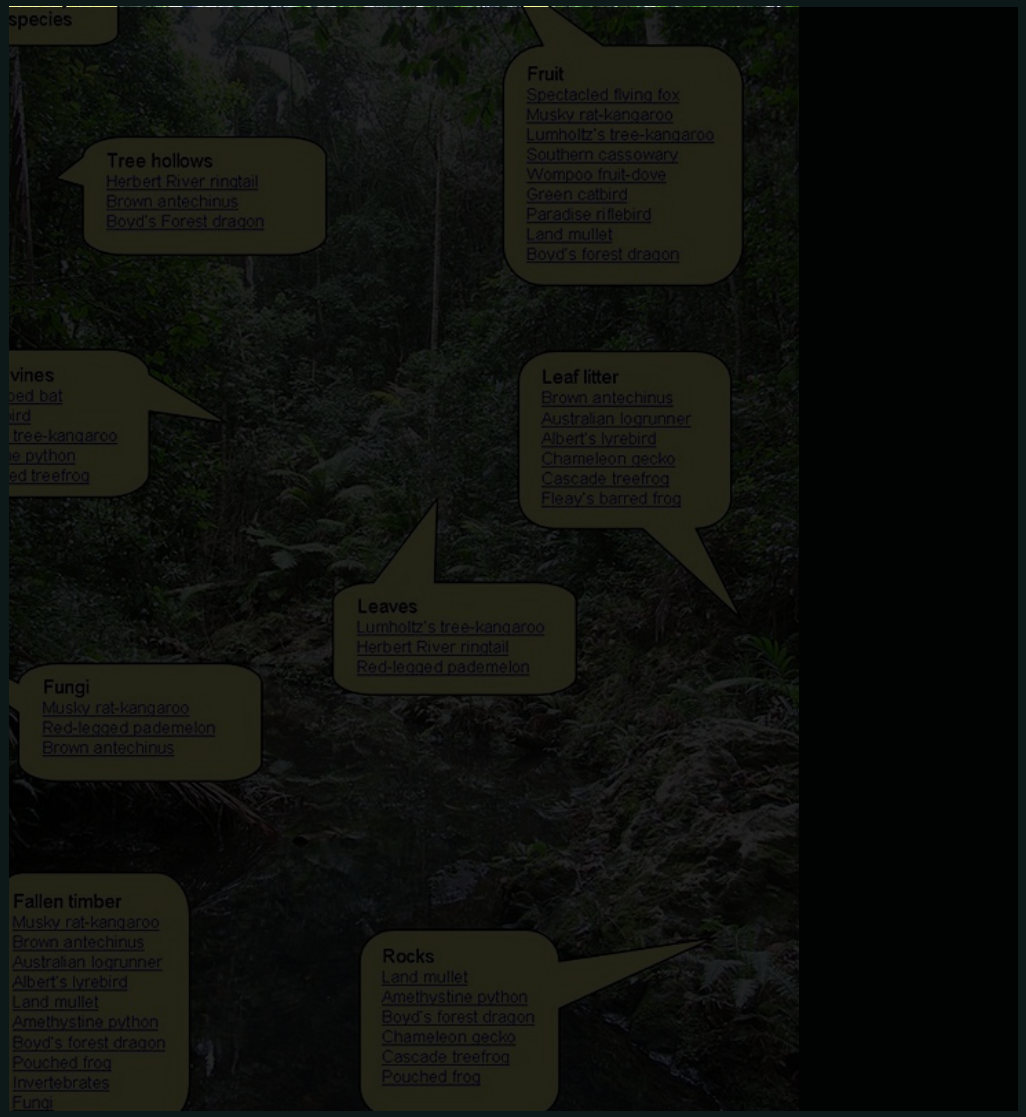
tear food efficiently

Flight styles

soaring, hovering, silent flight or high-speed pursuit

In Queensland, “raptors” includes eagles, hawks, kites, falcons and owls.

Queensland is not one raptor habitat — it is many



Cape York & northern savannas

large territories, woodland hunting, riparian nests

Rainforests & wet tropics

owls and forest-edge hunters; complex prey webs

Coastal wetlands

kites, eagles, waterbirds and carrion flows

Urban bushland & farms

collisions, poisons, rescue cases — but also stewardship

The conservation challenge changes by habitat.

Sources: Queensland Government habitat and threatened wildlife pages | Image: Queensland Government rainforest habitat guide

Why raptors matter

Raptors are more than charismatic birds: they are ecosystem signals.

Pest control

Some raptors take rodents, rabbits or pest birds, reducing pressure on crops and storage areas.

Food-web balance

They remove vulnerable animals and keep prey behaviour dynamic.

Health indicator

Declines can signal habitat fragmentation, poisoning or prey collapse.

Culture & education

Raptors are visible, memorable gateways into conservation.

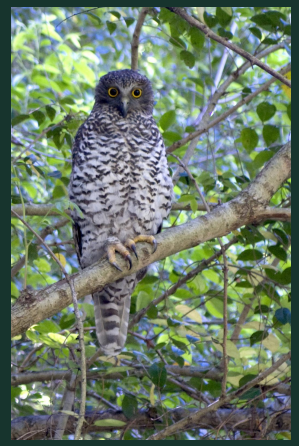
Ecological roles summarized from raptor conservation literature

Representative Queensland raptors

Wedge-tailed Eagle

large aerial hunter and scavenger

Powerful Owl



forest owl; depends on possums and gliders

Red Goshawk

endangered

endangered apex predator; Cape York and northern woodlands

Kites & Falcons

agile hunters in open country, wetlands and towns

Sources: Queensland Government and BirdLife Australia species summaries

Main threat pathways

Threats act together — a bird may face several pressures in the same territory.

Habitat loss

land clearing, urban expansion, nesting-tree loss

Poisoning

rodenticides and other toxins entering food chains

Collisions

vehicles, powerlines, fences and turbines

Climate stress

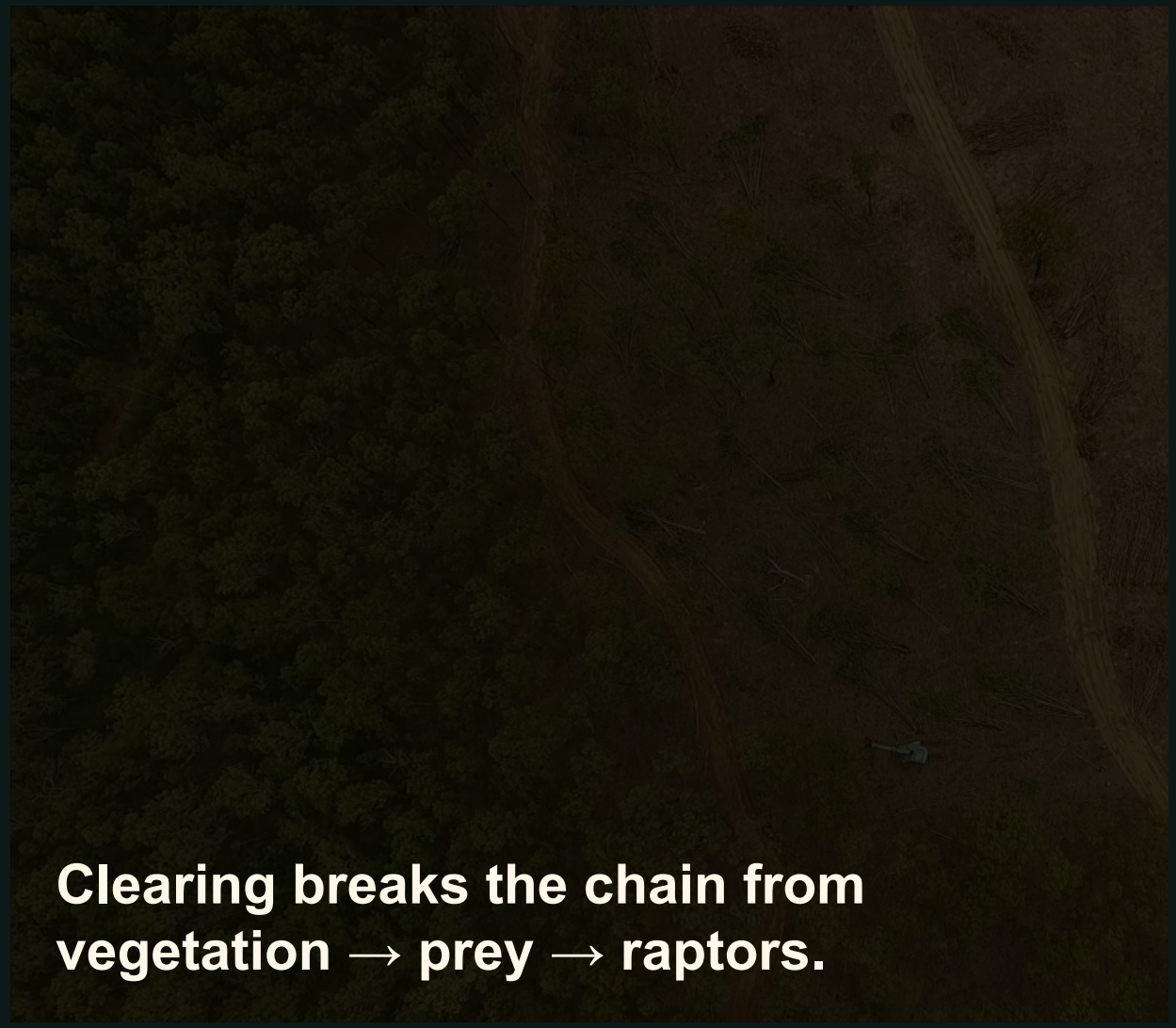
heat, drought, fire and prey instability

Human disturbance

nest disturbance, persecution, rescue burden

Sources: Queensland Government threatened wildlife threats; Brisbane Woodland Raptors Conservation Action Statement

Habitat loss is also food loss



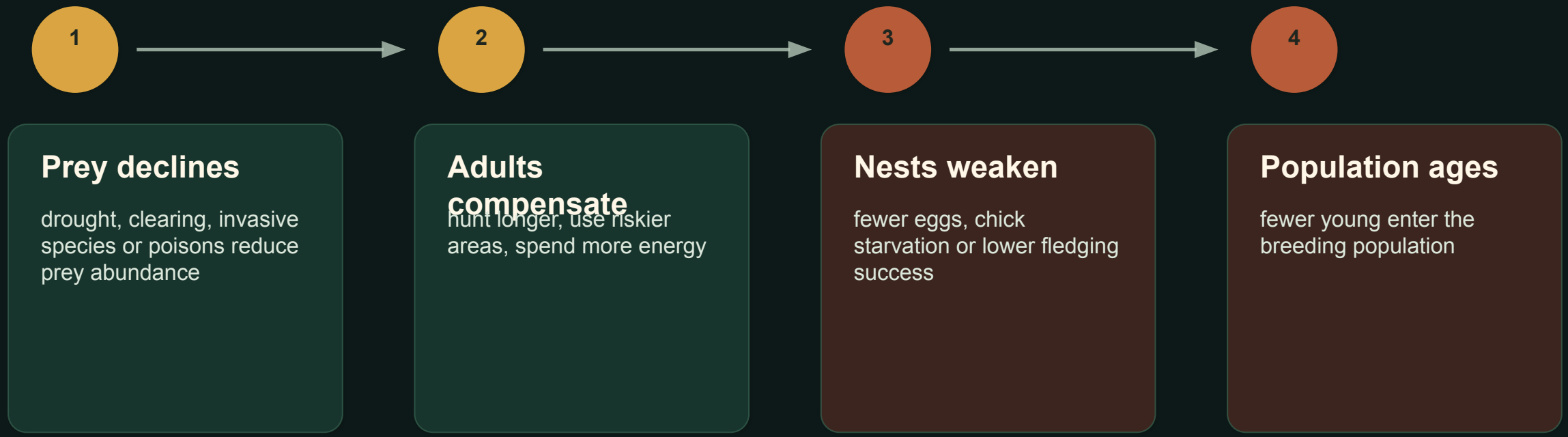
- Fewer old trees, hollows and stick-nest sites
- Less cover for rodents, reptiles, insects and small birds
- Fragmented hunting territories require more energy
- Edge effects increase disturbance, collision and predator pressure

Queensland context

Threatened-fauna habitat loss is ongoing, with land clearing historically and recently driven strongly by pasture development.

Sources: Queensland State of the Environment 2024; Queensland Government wildlife threats | Image: WWF Australia

Reduced food can trigger population decline



Raptor decline is often a breeding problem before it becomes a visible mortality problem.

Rodenticides can move up the food chain

Secondary poisoning pathway

Bait

rodenticide placed for pest control

Rodent

eats bait and becomes toxic prey

Raptor

hunts weakened or exposed rodent

Outcome

bleeding, weakness, poor hunting or death

Practical message

Wildlife-safe pest control matters: raptors cannot help manage rodents if the rodents become poisoned prey.

Sources: APVMA rodenticides page and SGAR review; BirdLife Australia | Image: Greater Wellington Regional Council

Collisions add mortality in human-shaped landscapes

As raptors move through farms, towns and transport corridors, infrastructure becomes part of the risk environment.

Roads

eagles and kites attracted to roadkill can be hit by vehicles

Powerlines

electrocution or collision, especially near hunting and roosting areas

Fences

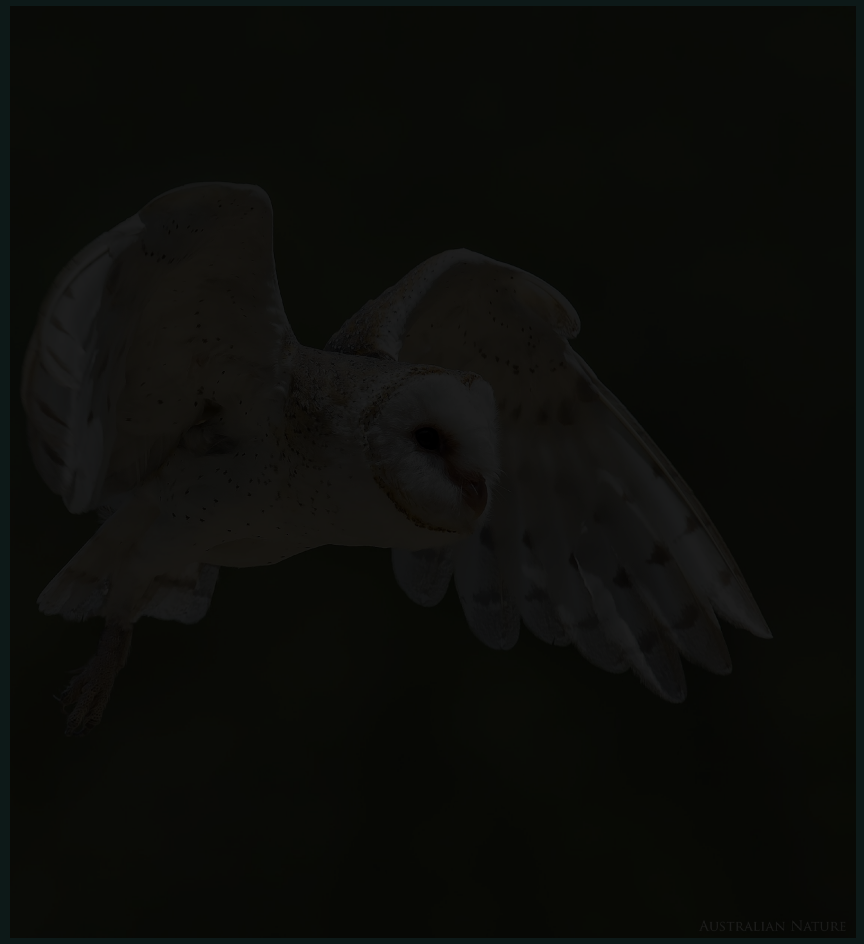
entanglement risk for low-flying hunters

Wind turbines

site-specific risk requiring careful planning and monitoring

Sources: Brisbane Woodland Raptors Conservation Action Statement; general wildlife collision guidance

Climate stress and invasive species change prey availability



- Heat and drought reduce prey breeding pulses
- Fire removes cover and nesting trees
- Floods can change wetland prey and carrion availability
- Cats and foxes reduce small native mammals, birds and reptiles

Conservation lesson

Protecting raptors means protecting resilience in the prey base — not only protecting individual birds.

Sources: Queensland Government wildlife threats | Image: Eastern Barn Owl

Rescue and rehabilitation reveal where systems fail

What rescue sees

collisions, poisoning, entanglement, orphaned young, starvation

What rehab provides

treatment, recovery, release and public education

What data can show

hotspots, repeat threats and priorities for prevention

Best-case conservation reduces the need for rescue.

Sources: wildlife rescue and rehabilitation practice; Queensland community action guidance | Image: Powerful Owl

Conservation toolkit: protect, connect, detoxify

Protect habitat

retain old trees, riparian corridors, wetlands and known nest areas

Connect habitat

corridors and stepping-stone vegetation across farms and towns

Detoxify food webs

reduce risky rodenticide use; prefer trapping and integrated pest management

Monitor populations

nest checks, GPS tracking, citizen-science records and rehab data

Design safer infrastructure

roadkill management, powerline mitigation and careful turbine siting

Sources: Queensland Government red goshawk project; Brisbane Woodland Raptors Conservation Action Statement; APVMA

Science makes conservation targeted

Good raptor conservation depends on knowing where birds breed, hunt and die.

GPS tracking

reveals home ranges, dispersal and critical habitat

Nest monitoring

measures breeding success and disturbance

Diet analysis

pellets, prey remains and cameras show food-web change

Citizen science

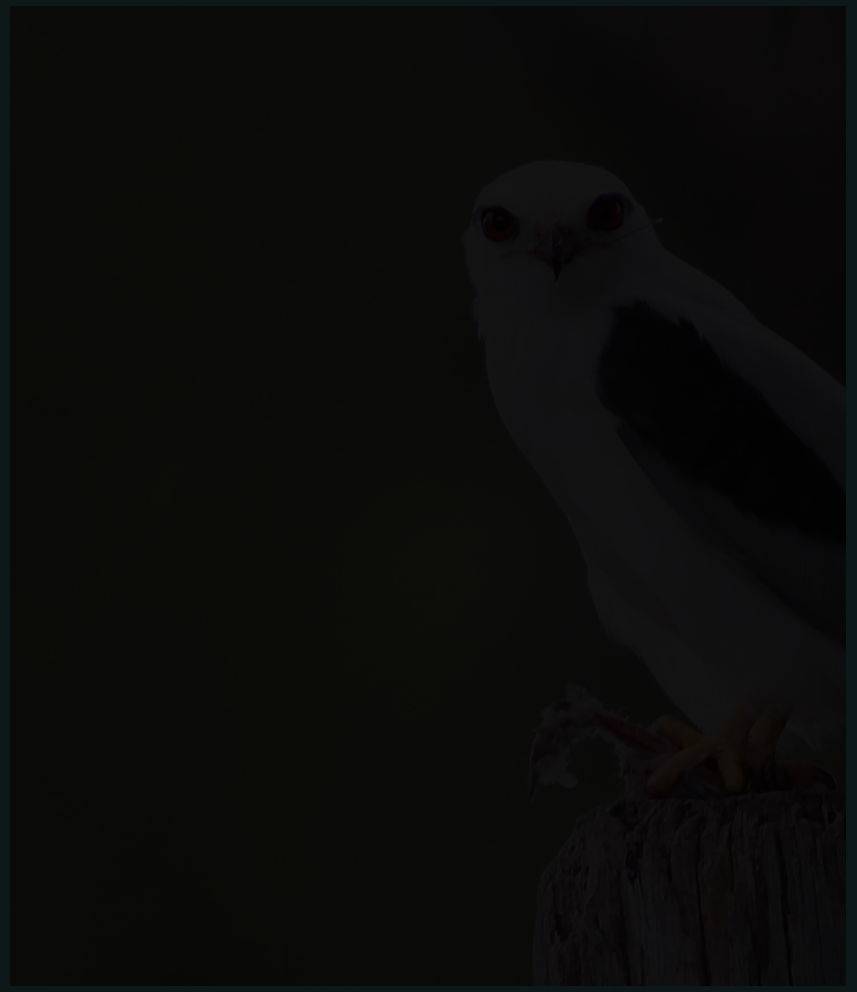
eBird, Birdata and local records fill distribution gaps

Rescue records

identify collision, poison and entanglement hotspots

Sources: Queensland Government red goshawk project and raptor monitoring practices

Community action: small choices, large territory effects



- Report sightings of rare raptors through eBird or Birdata
- Choose wildlife-safer rodent control and remove carcasses carefully
- Keep cats contained, especially near bushland and wetlands
- Retain large trees and native vegetation on private land
- Drive carefully near roadkill and known eagle areas

Simple message
Raptors use huge spaces, so many people share responsibility for one bird's territory.

Sources: Queensland Government red goshawk “How you can help”; BirdLife Australia | Image: Black-shouldered Kite

Future solutions: conservation by design

1	**Smarter planning**	use habitat maps before clearing, roads or energy projects are approved
2	**Wildlife-friendly farming**	shelterbelts, nest-tree retention and integrated pest management
3	**Safer pest control**	move away from persistent poisons where raptors and owls hunt
4	**Technology support**	GPS tags, cameras, AI acoustic tools and shared sighting databases
5	**Long-term funding**	monitoring must last longer than a single breeding season

Solutions synthesis from conservation planning, pest-management and monitoring sources

Key takeaways

Raptors are indicators

their decline can reveal problems in whole ecosystems.

Food webs matter

protecting prey and habitat is the foundation of raptor conservation.

Threats interact

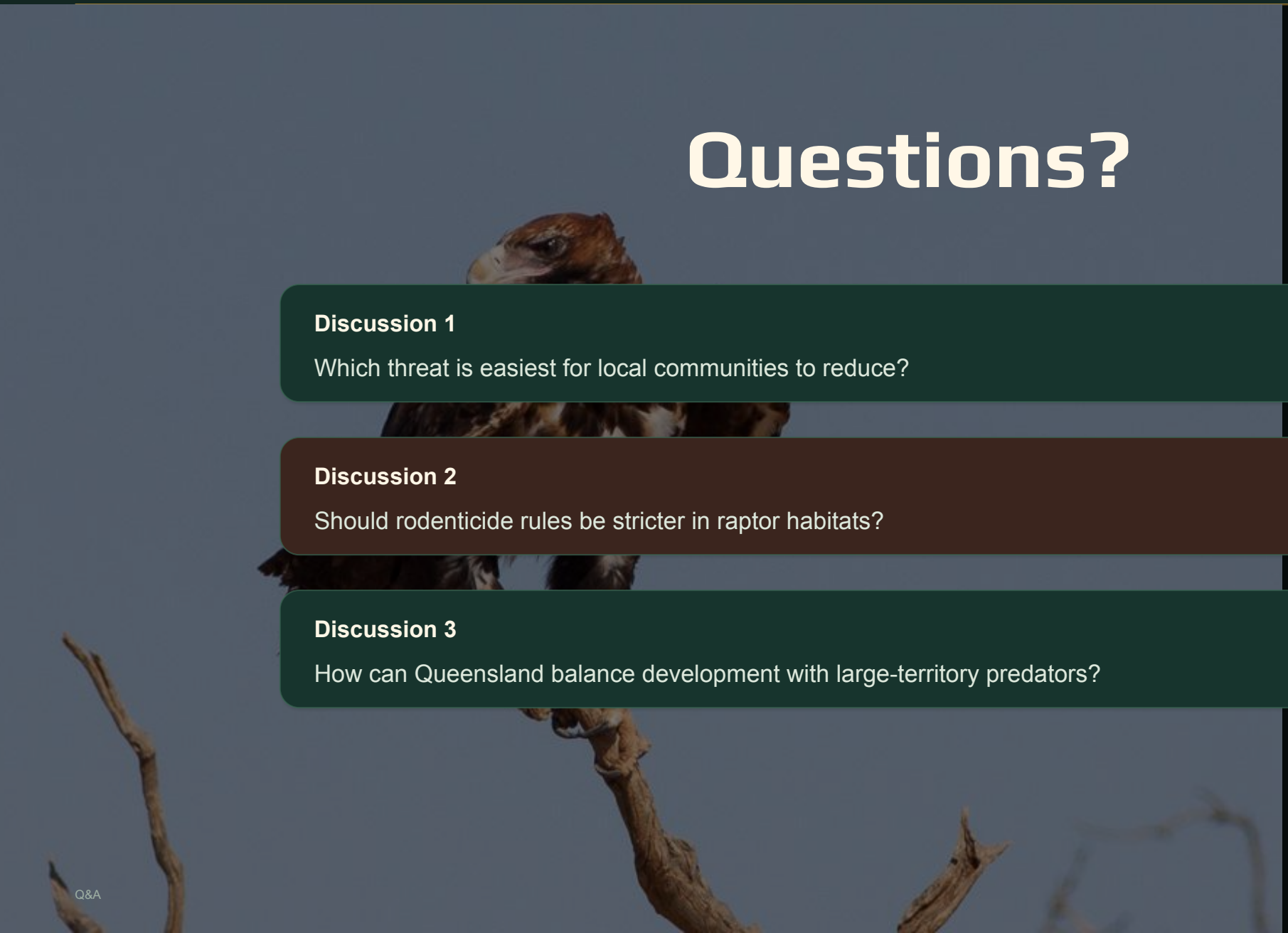
clearing, poison, collisions and climate stress compound each other.

Solutions exist

habitat protection, safer pest control, monitoring and community action can work together.

Protect the landscape that feeds the sky.

Q&A and discussion



Questions?

Discussion 1

Which threat is easiest for local communities to reduce?

Discussion 2

Should rodenticide rules be stricter in raptor habitats?

Discussion 3

How can Queensland balance development with large-territory predators?

Selected references and image credits

Key sources

• Queensland Government — Threats to wildlife; Red Goshawk featured species project; rainforest habitat guide
• Queensland State of the Environment Report 2024 — threatened fauna species habitat
• APVMA — rodenticides and anticoagulant rodenticide review
• BirdLife Australia — Red Goshawk profile and SGAR / rat poison conservation submission
• Brisbane City Council — Woodland Raptors Conservation Action Statement
• DCCEEW — National Recovery Plan for the Red Goshawk

Image credits

• Wedge-tailed Eagle, Powerful Owl, Eastern Barn Owl, Nankeen Kestrel, Black-shouldered Kite: public / educational image assets used in redesigned deck
• Land clearing aerial image: WWF Australia
• Rodenticide pellets: Greater Wellington Regional Council
• Queensland rainforest habitat image: Queensland Government
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References are condensed for slide readability

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