

# USING RECALL TO INCREASE OPPORTUNITY FOR REPRODUCTION IN MIXED-SPECIES AVIARIES

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*speaker notes in italics*





# National Aquarium Exhibits

- **Australian Aviary**
  - 73 species (1,150 individual animals)
  - 28 reptile
  - 24 fish
  - 22 avian
  - 1 mammal
  - 2 crustacean
- **South American Aviary**
  - 32 species (495 individual animals)
  - 3 reptile
  - 5 fish
  - 18 avian
  - 2 mammal
  - 4 amphibian
  - 1 arachnid
- **North Atlantic Alcids**
  - 3 avian species (30 to 35 individuals)



# National Aquarium Birds

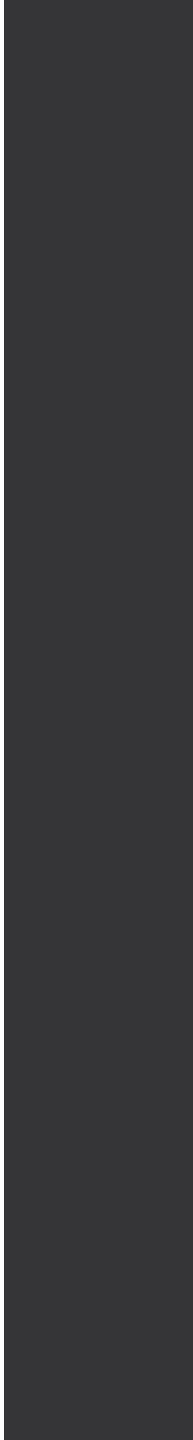
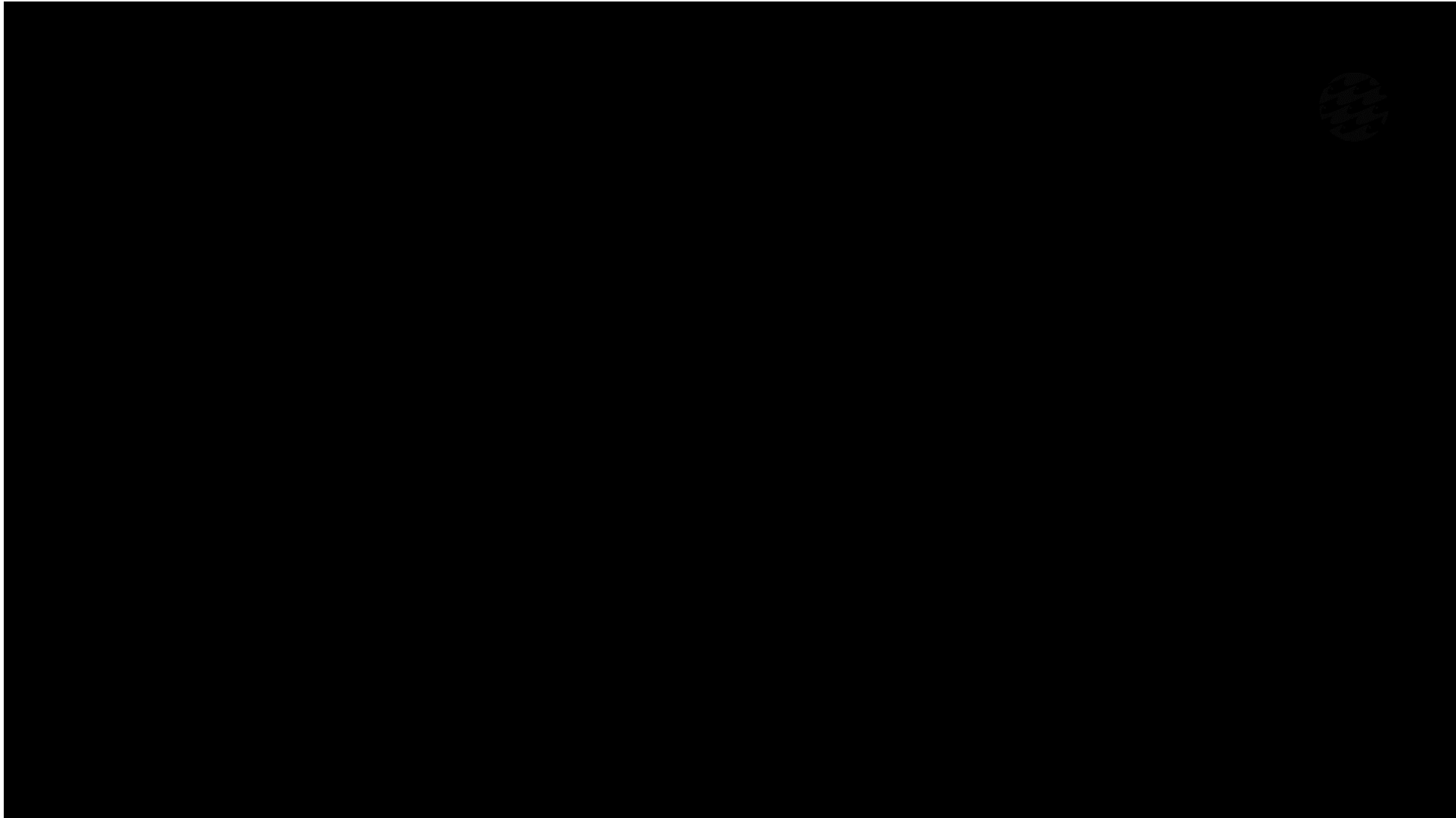
## ▪ **Australian Aviary**

- 90 to 100 individuals representing 22 avian species
- Large waterfall (30 feet-ish)
- Walk-through aviary
- 35,000 gal open top aquariums
- Ceiling height 120 feet
- 165,000 sq ft exhibit space

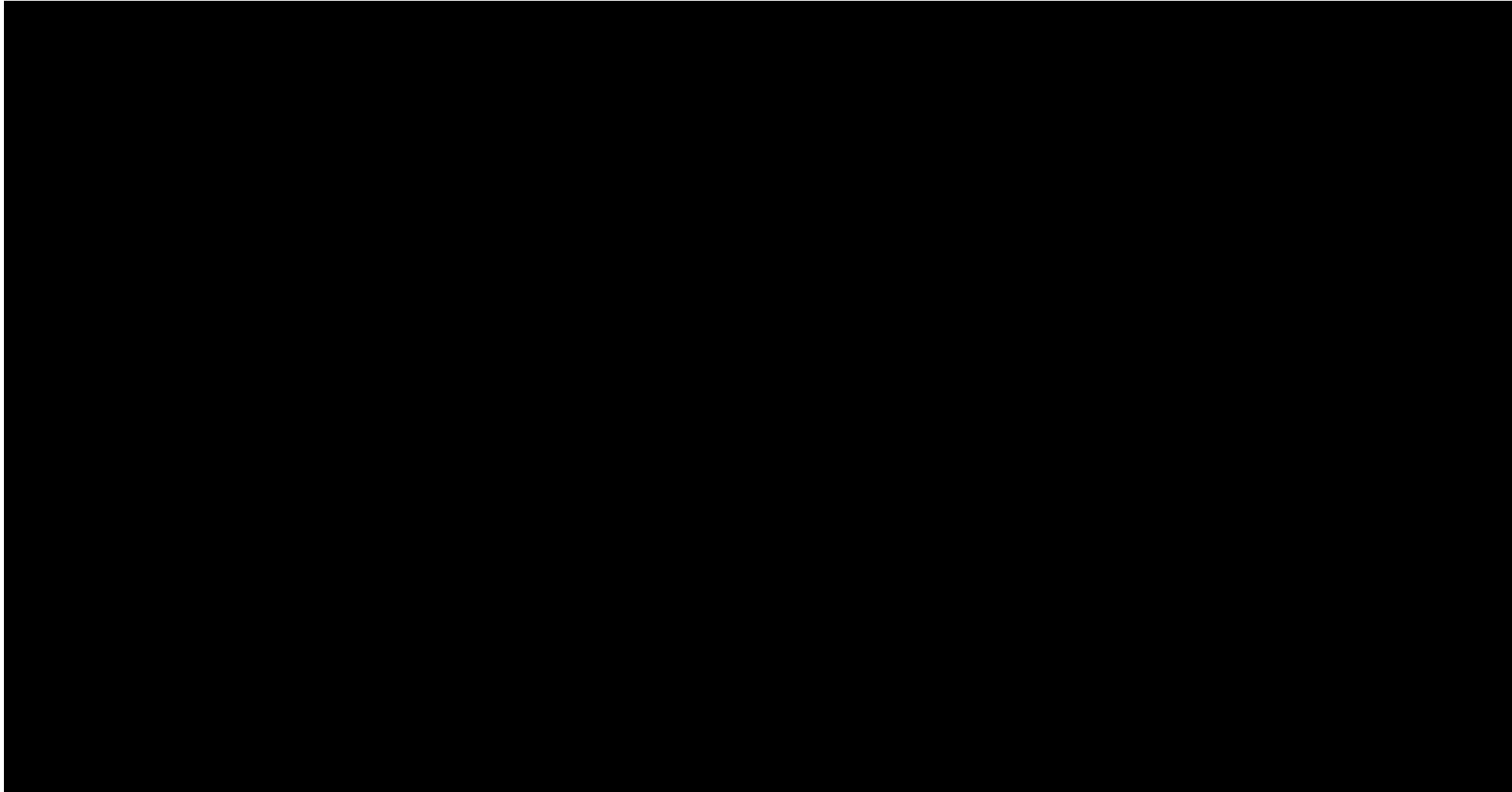
## ▪ **South American Aviary**

- 45 to 60 individuals representing 18 avian species
- Multiple waterfalls
- Walk-through aviary
- Ceiling height 80 feet
- Heavily planted, mature trees (30+ year old)

# Australian Aviary



# South American Aviary





Why  
recall?



# Why recall?

Support  
reproduction

Manage social  
group

Check health

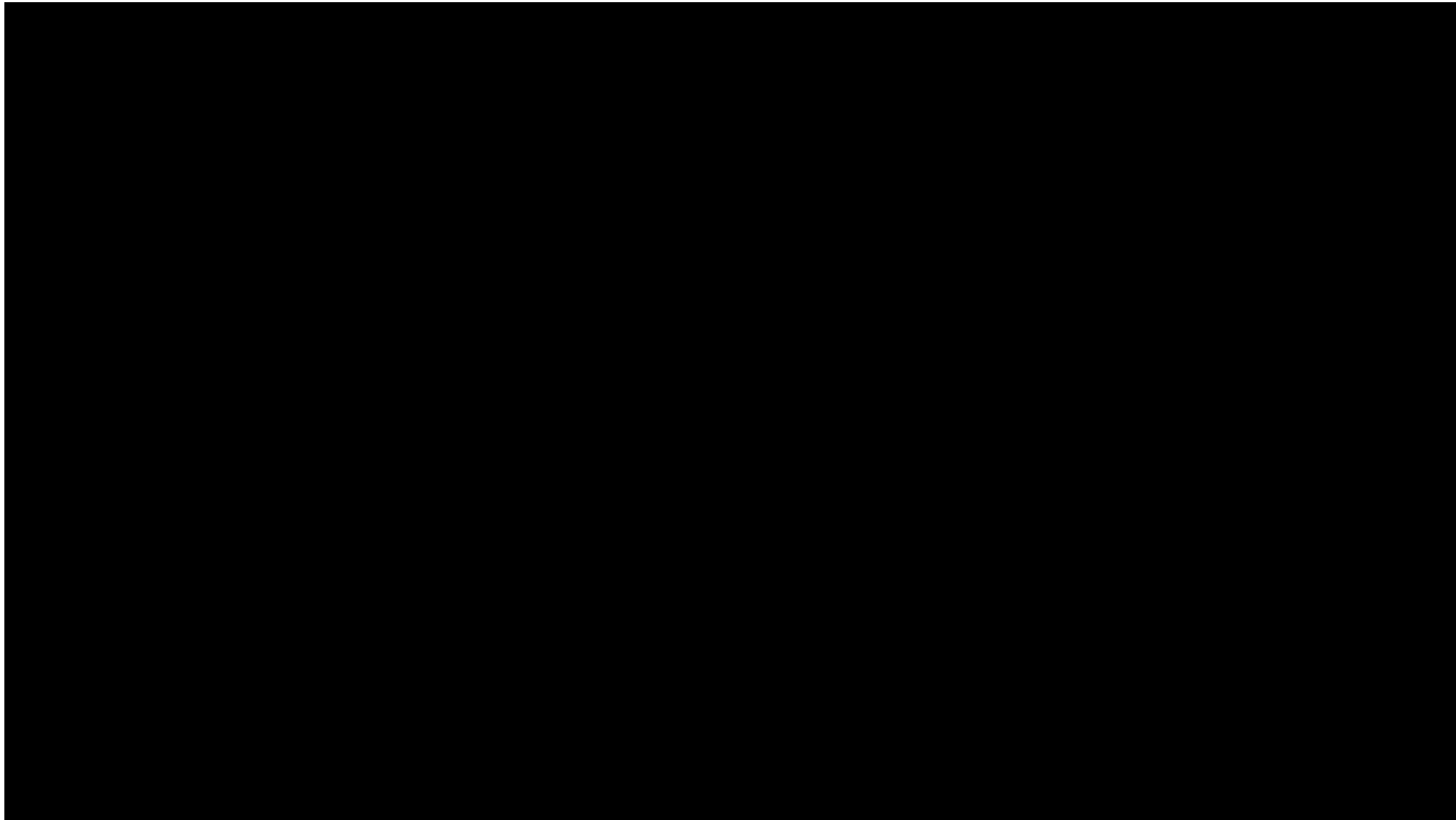
Maintenance

Observe  
behavior

Mitigate  
undesirable  
behaviors

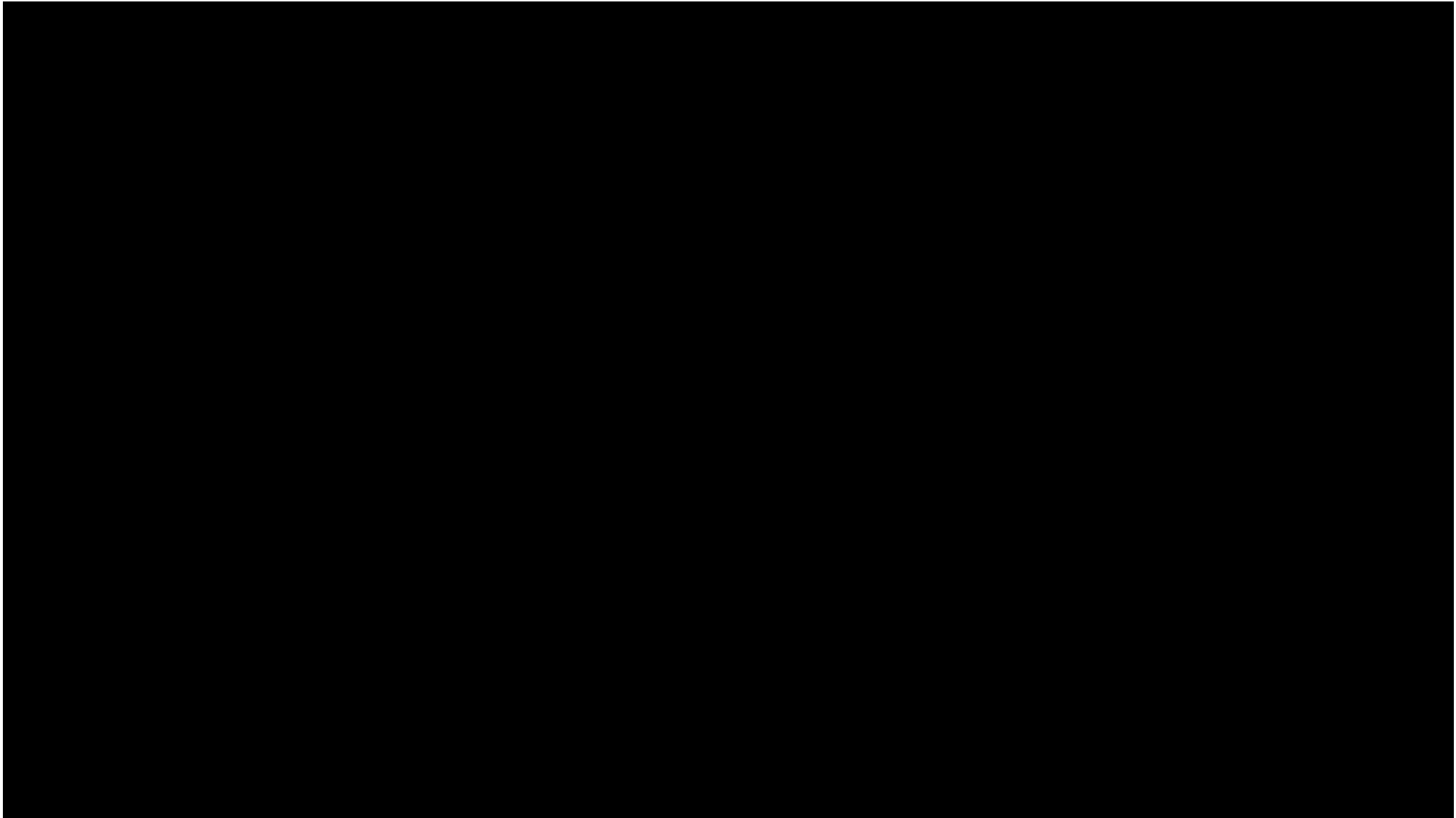
Emergency  
shifting

# Australian Exhibit Recalls

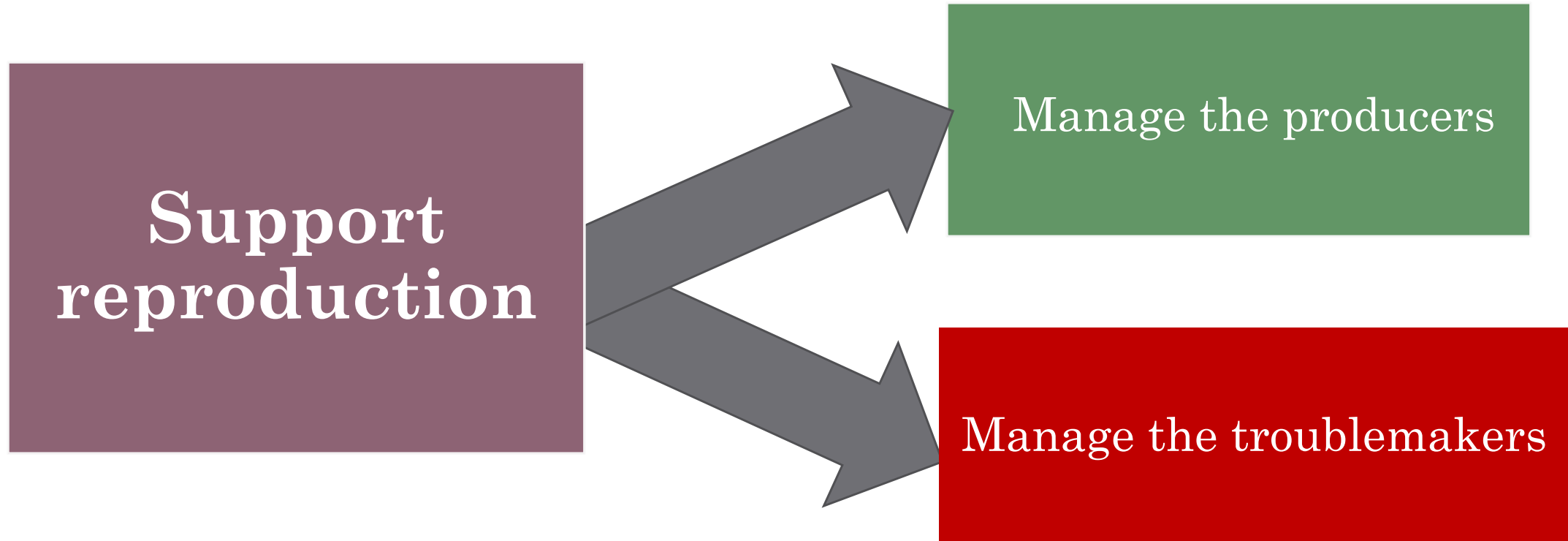




# South American Exhibit Recalls



# Reproduction



*There are two categories we use to manage/maximize reproduction with recall.*

Examples of  
managing the  
producers with  
recall to optimize  
reproduction

Red-capped cardinals (*Paroaria gularis*)

Pionus parrot (*Pionus menstruus*)

Silver-beak tanager (*Ramphocelus carbo*)

Turquoise tanager (*Tangara mexicana*)

Cockatiels (*Nymphicus hollandicus*)

# Red-capped cardinals (*Paroaria gularis*)



All RCC's trained to recall to percussion block

Pair A moved to exhibit to clutch

Fledges learn recall

Once self sufficient, fledges recalled to off-exhibit to age

Ship offspring seasonally post 7 months old

Once offspring # is reached, all males recalled.

Adult females and female offspring to single sex flock on-exhibit

Pair A either re-clutch or recalled

Pair B moved to exhibit

collection plan 2.2 recommended

## *Recalled*

- *Prefer to hold two breeding recommended pairs*
- *Only one pair exhibited at a time*
- *Reproduce number of chicks SSP requests per year*
- *Fledges learn recall by initially following parents, then are targeted to ensure behavior is solid*
- *Once self sufficient, fledges recalled to howdy cage and moved to off-exhibit holding to age (7 months before ship)*
- *Pair A allowed to re-clutch if offspring still needed by SSP #'s. if not, Pair A recalled to move off-exhibit*
- *Once offspring # is reached for year, all males housed off-exhibit, juvies sometimes together, adult breeders separate*
- *Adult females and female offspring housed in single sex flock on-exhibit, wait until animals age and weather is appropriate*

# Blue-headed Pionus Parrot (*Pionus menstruus*)



Pair trained to recall to a bell

Female currently housed off-exhibit

Male moved to exhibit daily, released from crate appx 9am and recalled around 1pm

Once chick(s) fledge, male returns to daily routine  
Female stays in

Female has access to nest box off-exhibit

Male continues regular routine to the exhibit free-flight until eggs hatch

Male stays off exhibit when chicks are present

*Unmanaged female parrots in our free-flights have traditionally not done well, nest in walls, even when we provide boxes etc.*

# Silver-beaked tanager (*Ramphocelus carbo*)



Silver-beaks  
trained to recall  
to percussion  
block

Harem- Male A  
and all females  
on exhibit  
(Male B in back  
of house)

Fledges learn  
recall

Ship out  
offspring  
seasonally

Once self sufficient,  
fledges recalled to off-  
exhibit to age

Once offspring # is reached  
for the year, all males  
recalled.

Adult females and female  
offspring to single sex flock  
on-exhibit

Release Male B  
to exhibit with  
females

Male A is recalled  
off-exhibit once  
SSP recommended  
# is reached

collection plan 2.5 recommended

*Reproduce number of chicks SSP requests per year*

*Ideal collection plan is 2.5 females*

- *Only run silver-beaks in harems*
- *Male A with females*
- *Fledges learn recall by initially following parents, then are targeted to ensure behavior is solid*
- *Once self sufficient, fledges recalled to howdy cage and moved to off-exhibit holding to age*
- *Once total # offspring reached, all males housed off-exhibit. Adult females and female offspring housed in single sex flock on-exhibit*
- *Send out offspring seasonally*
- *switch breeding males*
- *harem on exhibit when breeding or same sex females until shipment*
- *Fledges learn recall by following parents, then are targeted to ensure behavior is solid*
- *For reproducing - harem on exhibit, single male and multiple females to produce # SSP requested*
- *Once self sufficient fledges recalled to howdy cage and moved to off-exhibit holding to age*
- *Once # requested reached, recall male to off-exhibit, release second male.*
- *Once total # offspring reached, all males housed off-exhibit. Adult females and female offspring housed in single sex flock on-exhibit*



# Turquoise tanager (*Tangara mexicana*)



Turquoise tanagers trained to recall to percussion block

Single pair on exhibit at one time,  
Multiple pairs held in back up space

Pair A moved onto exhibit to reproduce

Ship out offspring seasonally

Fledges learn recall

Repeat process with Pair B and Pair C

Pair A is recalled to off-exhibit once recommended # or up to 2/3 clutches

Once self sufficient,  
fledges recalled to off-exhibit to age

**collection plan 3.3 recommended**

- *Pair A Pair B Pair C*
- *Single pair on exhibit*
- *Multiple pairs*
- *off-exhibit*
- *Pair on exhibit allowed to reproduce either SSP rec # or up to to 2-3 clutches*
- *Once # of clutches is reached (or they have been out 6 weeks with no nesting attempts) On-exhibit pair is rotated to off-exhibit, next pair is rotated out*
- *Once self sufficient fledges recalled to howdy cage and moved to off-exhibit holding to age*

# Cockatiel (*Nymphicus hollandicus*)



Cockatiels trained to recall to castanet

Single sex male flock housed on exhibit

Females held off exhibit

Fledges learn recall by following parents, then are targeted to ensure behavior is solid

Recall male and bring to females when offspring are needed

Chicks are parent-reared, sire and male offspring released to exhibit

Examples of  
managing the  
troublemakers with  
recall to protect  
reproduction

Blue-crowned motmot (*Momotus momota*)

Blue-faced honeyeaters (*Entomyzon cyanotis*)

Lorikeets (*Trichoglossus haematodus*)

Laughing kookaburra (*Dacelo novaeguineae*)

Golden-lion tamarins (*Leontopithecus rosalia*)

Two-toed sloths (*Choloepus didactylus*)

# Managing the troublemakers

## Blue-crowned mot-mots



- Trained to recall to percussion block
- Recalled when other birds are vulnerable i.e. nestlings, fledges, new exhibit birds



# Managing the troublemakers

## Blue-faced honeyeaters

- Trained to recall to two banging bowls
- Recalled when other birds are vulnerable i.e. nestlings, fledges, new exhibit birds

# Managing the troublemakers

## Lorikeets (rainbow mafia)

- Trained to recall to train whistle
- Recalled when other birds are vulnerable i.e. nestlings, fledges, new exhibit birds



# Managing the troublemakers

## Laughing kookaburra

- Trained to recall to name, required to land on hand-held perch
- Recalled daily and hand-fed to prevent predation on exhibit







# Managing the troublemakers

## Golden-lion tamarins

- Trained to recall to training whistle
- Recalled everyday and housed in howdy overnight to prevent nest raiding



# Managing the troublemakers

## Two-toed sloth

- Trained to recall to clicker, target to buoy
- May need to be moved from trees with nests/chicks etc

# Two-toed sloth



# Two-toed sloth



# Aviary Recall Examples



Recalled managed 'Troublemaker'



Recalled managed 'Producer'

- Laughing kookaburra- name and perch 
- Blue-crowned motmots- percussion block 
- Blue-faced honey-eaters- bowls banging 
- Lorikeets- train whistle 
- Bowerbird- cowbell 
- King parrot- small bell
- All small seed parrots (mulgas, budgies, cockatiels, rosellas etc)- castanet 
- All tanagers, caciques, cardinals, trogons, motmot- percussion block  
- Screaming piha- percussion block & clicker 
- Sun conures- small bell
- Sun bitterns- percussion block and station 
- Tamarins- training whistle 
- Sloths- clicker & buoy 



**Questions?**

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