

Floodplains Reimagined: Habitat Suitability Criteria for Birds

Steering Committee
Feb 22, 2023



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Floodplains Reimagined: Habitat Suitability Criteria for Birds

Advisory Committee
Feb 10, 2023



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Priority Bird Species/Groups

Phase 1 Priorities:

Shorebirds (non-breeding)
Waterfowl (non-breeding)
Sandhill Crane (roosting)
Sandhill Crane (foraging)

Consider in Future Phases:

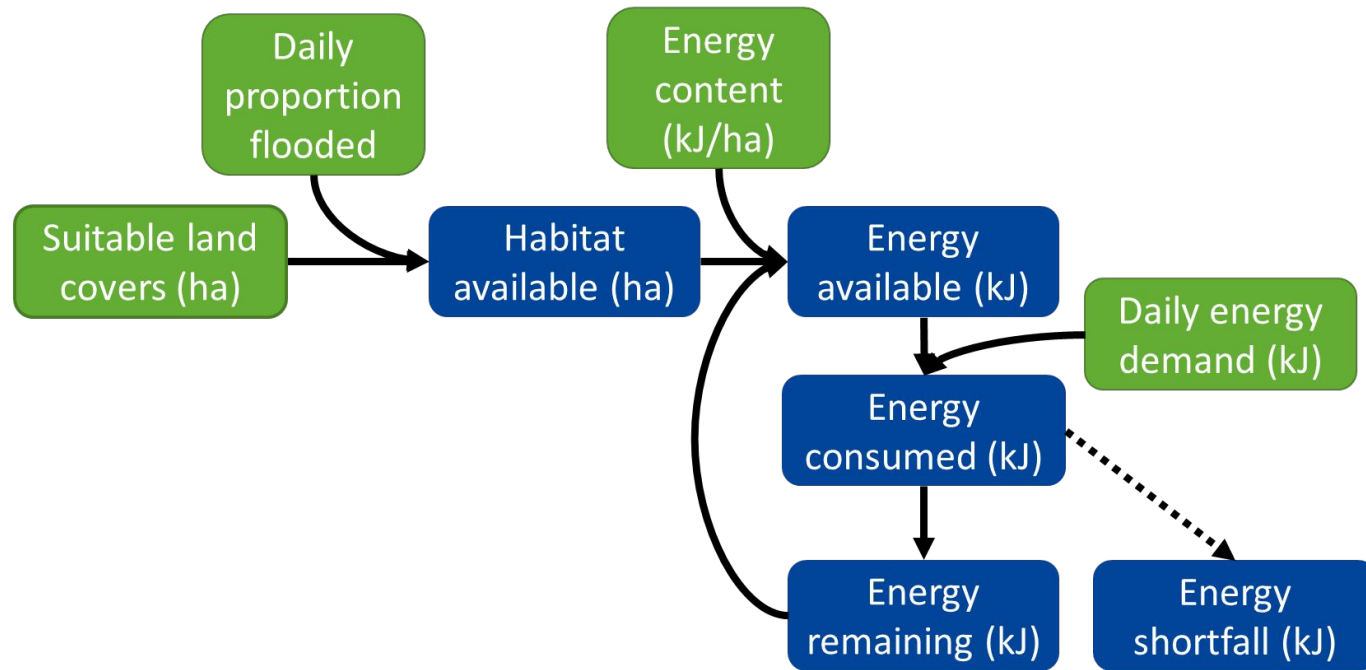
Shorebirds (breeding)
Waterfowl (breeding)
Riparian landbirds
Burrowing Owl
Swainson's Hawk
Tricolored Blackbird
Bank Swallow

Habitat Suitability Criteria

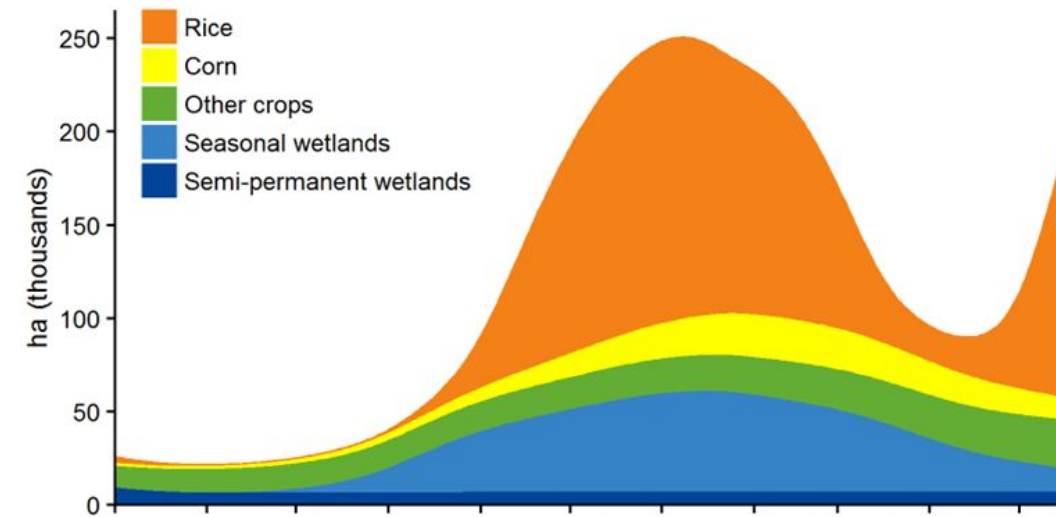
Group	Land cover class	Flooding status	Depth	Season
Shorebirds (non-breeding)	Managed wetlands, rice, grain corn, field & row crops	Must be flooded	< 4 inches (~10cm)	July 1 - May 15
Waterfowl* (non-breeding)	Managed seasonal wetlands, rice, grain corn	Managed wetlands and rice must be flooded	< 12 inches (~30 cm)	Aug 15 - Mar 31
Cranes (roosting)	Managed wetlands, rice, corn, wheat, pasture	Must be flooded	< 8 inches (~20 cm)	Oct 1 - Mar 15
Cranes (foraging)	Primarily rice, corn, wheat within 5km of known roost	Dry or very shallow (e.g. leading edge of flood-up)	< 2 inches (~5 cm)	Oct 1 - Mar 15

*emphasis on dabbling ducks (over geese, diving ducks)

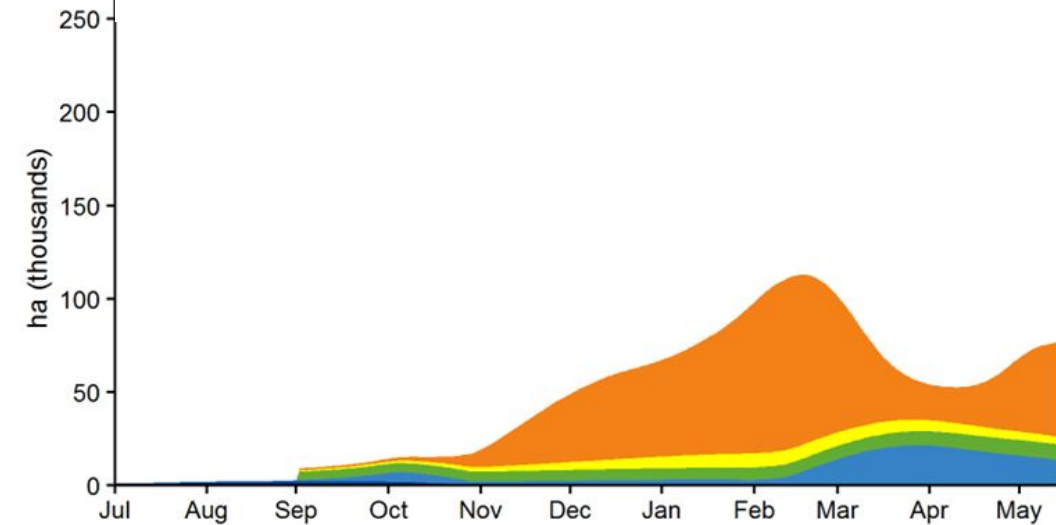
Bioenergetics Models



Habitat available to shorebirds (suitable land covers flooded)



Habitat accessible to shorebirds (suitable depth)



Workflow & Next Steps

Hydrodynamic model

Simulate inundation extent and depth over multiple years (Oct-Jun, 1997-2018)

Habitat suitability evaluation

Estimate total amount of suitable habitat available for each priority species (e.g., by year, basin, and scenario)

Bioenergetics evaluation

Estimate total number of bird-use days provided for shorebirds and waterfowl (e.g., by year, basin, and scenario)