

A YEAR IN THE LIFE OF THE BURROWING OWL

Spring Arrival in Alberta

In April or May Burrowing Owls arrive in Alberta and begin to search for suitable nest sites.

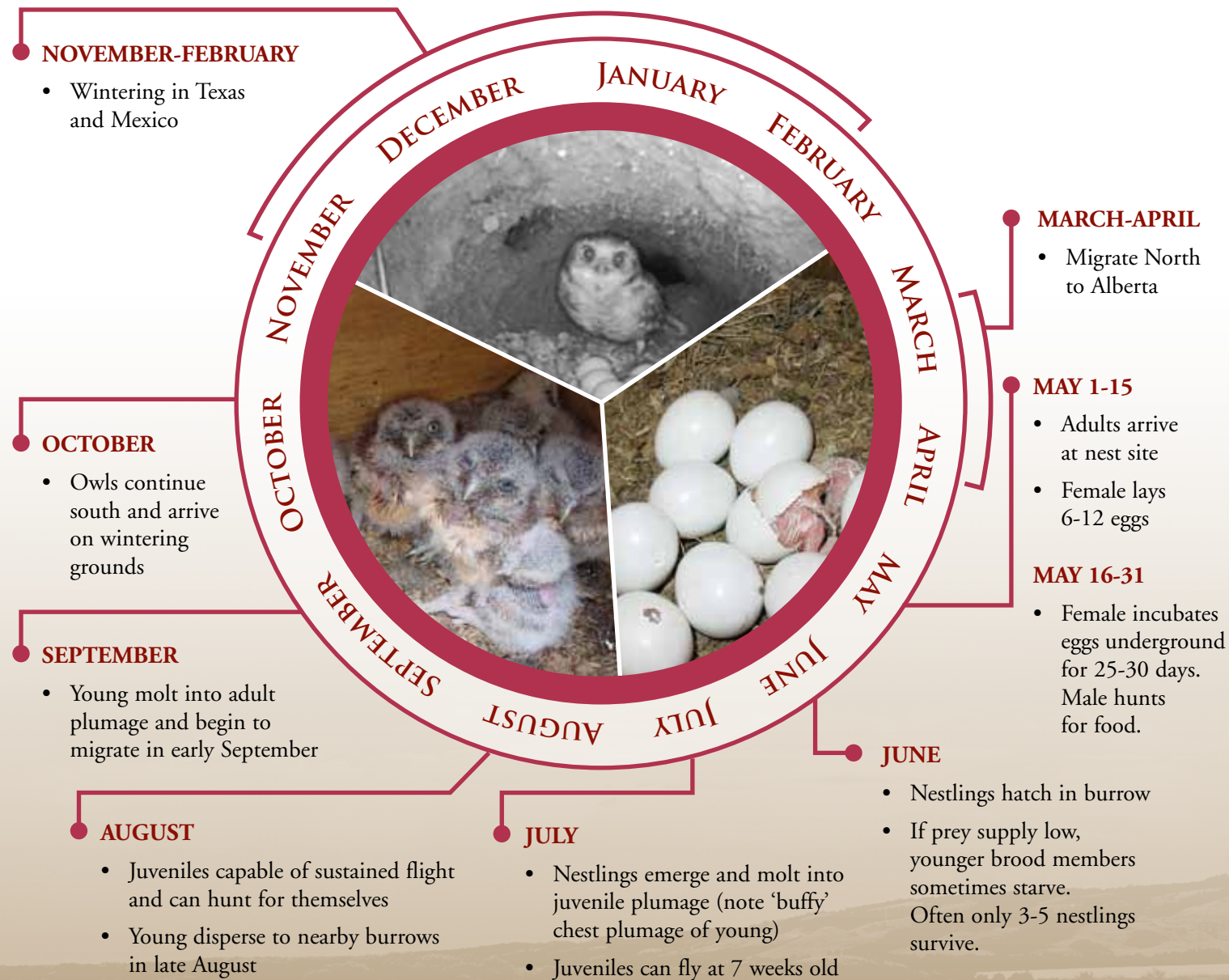
Pairing Up – Monogamy?

Burrowing Owls do not generally pair for life. Even during one breeding season, while a male and female will remain together and dedicate themselves to one brood, they are not necessarily “monogamous”. Females, in particular, have been reported to make quick visits to other males nearby.



Courtship

Male displays involve “coo-cooo” calls, bowing, scratching, nipping, and short, flashy flights. A male will also attempt to entice a female by assembling a prey cache of small mammals to store in a burrow.



WORKING TOGETHER
for the continued coexistence of prairie wildlife and sustainable agriculture.

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BURROWING OWLS IN ALBERTA

ALBERTA FISH AND GAME ASSOCIATION

BURROWING OWLS IN ALBERTA

FACTS

- Endangered
- Current breeding range is about 1/3 its historical range.
- Only a few hundred breeding pairs remain in Canada



ENDANGERED

A species facing imminent extirpation (no longer exists in province) or extinction (no longer exists anywhere in the world) if no recovery actions are taken.

A SHARP DECLINE – WHY?

A combination of some or even all of the following:

- Habitat loss/degradation
- Predation
- Pesticides
- Vehicle collisions
- Weather patterns



RANCHERS AND FARMERS – AIDING IN RECOVERY



The success of conservation efforts in Canada is the direct result of dedicated stewardship actions by farmers and ranchers. Aiding initiatives like

Operation Grassland Community, producers are implementing *beneficial management practices*, reporting owl sightings, assisting researchers, and, most importantly, *caring for prairie habitats* that support owls and other wildlife.

KNOWLEDGE & RECOVERY

As we all learn and share more about the needs and behaviours of Burrowing Owls, we are all better able to tailor management strategies that support these needs.



Most agricultural producers are familiar with this little owl – about the size of a pop can on 4-inch stilts.

AN OWL OF A DIFFERENT FEATHER?... THE ‘UN-OWL-LIKE’ HABITS OF BURROWING OWLS

- Not strictly nocturnal, you have likely seen them flying and hunting either during the day or night.
- The only owl species in North America to nest underground (using abandoned ground squirrel and badger burrows).
- Uncommon in owls, Burrowing Owls are frequent hover hunters.

JUST WHAT ARE THOSE LONG LEGS FOR ANYWAY?

Maybe some of you already knew this? We didn’t. Recent research indicates Burrowing Owls have yet one more “un-owl-like” characteristic: through the use of GPS data-loggers, Burrowing Owls have been recorded to run more than 1km in a stretch, never leaving the ground!



BEEP, BEEP, ZIP DANG... Road Runner or Burrowing Owl?



The early owl gets the worm (or mouse)?

THE EARLY BURROWING OWL GETS THE... WORM?

It is easy to figure out what owls and other birds of prey eat: just examine the pellets they cough up. Close inspection of Burrowing Owl pellets shows skulls and other bones from mice and voles, the outer shells of insects, and, in rare cases, crayfish! But what about something without bones or a shell – like earthworms? Recent, more careful, Burrowing Owl pellet analysis has revealed thousands of the practically invisible bristles that earthworms possess in their skin.

CLUES A BURROWING OWL MAY BE NESTING ON YOUR PROPERTY:



White wash splattering. Owl droppings look similar to white paint splashes. A nesting burrow will have many of these near the tunnel entrance.

Owl pellets and prey remains. Pellets are lumps of undigested hair and bones that are regurgitated by owls.

Small manure mounds. Shredded horse or cow manure is often used to line the inside of nesting burrows.



MANURE? WHY?

Not totally sure, but theories include:

1. Manure may mask their scent from predators.
2. Manure attracts beetles that owls use for food.
3. Manure has moisture absorbing properties that can prevent the nest from flooding.
4. Manure absorbs excess carbon dioxide that can build up in a long underground tunnel.



A CASE OF MISTAKEN IDENTITY: THE SHORT-EARED OWL

Spotting the difference between Burrowing Owls and Short-eared Owls can be tricky. Here are some useful tips:

1. Short-eared Owls are approximately 2X the size of the Burrowing Owl.
2. Burrowing Owls stand tall on skinny, featherless legs. Short-eared Owls have thick, feathery legs that blend into its body.
3. Short-eared Owls nest on the ground, not underground like Burrowing Owls. If you see an owl fly up off a ground nest, it belongs to the Short-eared Owl.

HABITAT: WHAT A BURROWING OWL NEEDS TO SUCCESSFULLY RAISE A FAMILY:

Nesting

Owls like their nest burrows to be in flat, open terrain that is sparsely vegetated, and where grasses are short. WHY? Owls can see approaching predators and more easily capture prey near the nest.

Feeding

Owls also like tall, dense vegetation somewhere nearby – vegetation that is often associated with riparian (wetter) areas. This tall, dense vegetation is basically the ‘food factory’ for the owls, as it is optimal habitat for the owl’s favorite prey: insects, mice, and voles. Growing owlets require feeding throughout the day, and the success of the nest is dependent on having an abundant food source close by.

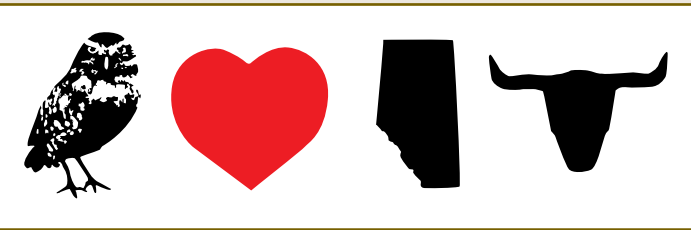
Satellite Burrows

Areas with a high density of burrows are preferred. Owls use additional, or “satellite” burrows as alternative roosting locations, for protection against predation, and for caching extra food.

Tidbits – What does a Burrowing Owl Eat?

In one summer a family can eat up to 1800 rodents and 7000 insects.

Young owls practice their hunting skills on grasshoppers because they are plentiful and easy to catch.



Cattle and other livestock are beneficial to Burrowing Owls: Grazing keeps vegetation growth to a height that is preferred by owls, and livestock provide owls a source of manure.

What Eats a Burrowing Owl?

- Hawks and Falcons
- Other owls: Great Horned and Short-eared
- Badgers and skunks
- Coyotes and foxes
- Weasels
- Rattle snakes and bull snakes

BENEFICIAL MANAGEMENT PRACTICES:

- When using machinery, avoid destruction of nests by leaving a 3 metre (10 foot) berth around the burrow.
- Avoid use of pesticides in areas where Burrowing Owls are found. If you know where a nest site is located, avoid spraying within 250 metres (800 feet) of the burrow.
- Prevent overgrowth of vegetation in nesting areas by using moderate livestock grazing.
- Fence off wetland areas and use designated cattle watering stations instead. Healthy wetland areas provide optimal foraging sites for owls. Cattle will also benefit!
- Drive more slowly if you know of owls nesting nearby. Owls tend to hang out on roadways, particularly at night.

DID YOU KNOW?

Only 6% of young owls return to breed in Canada the year after they are born. Although scientist have determined that about 40% of young owls die before they leave Canada, it is unclear whether the remaining owls choose to breed elsewhere or if they face high mortality rates on wintering grounds and during migration.