

Focus:

Alberta's Species-at-Risk

By Nigel Douglas



Greater sage-grouse

For the past several years, AWA has been working hard to raise the profile of the greater sage-grouse, arguably the most endangered species in the whole of Canada. Regular *Advocate* readers will be all too familiar with the desperate plight of this wonderful bird that has been driven to the edge of extirpation in Canada. But here we will look beyond the sad picture of mismanagement which has got us to where we are today to have a look at the actual bird itself: what is this bird that all the fuss is about?

The greater sage-grouse in particular is a strikingly imposing-looking bird. Picture a small turkey. Give it a brownish-black body, mottled with grey, and a jet black belly. Add to this a massive Elizabethan-style ruff around the neck and a large throat sac which inflates like a balloon. Finish off with a pair of bold, arched yellow eyebrows, and a long, erect, spiky black and white tail, and you are starting to get the picture. As if this appearance is not enough, the males gather together in the spring in communal "leks" where they dance and strut to impress the watching females, all the while emitting a bizarre series of popping and whistling sounds. The females lack the eccentric markings and behaviour of the males, but are still large and impressive birds. (A sage-grouse display is a truly breathtaking spectacle: search for "sage-grouse" on Youtube.com, sit back, and enjoy the show!)

There are two species of sage-grouse: the greater sage-grouse, *Centrocercus urophasianus* and the Gunnison sage-grouse, *Centrocercus minimus*. The greater sage-grouse

is the largest grouse species in North America (the Gunnison sage-grouse is about a third smaller). Following the loss of historical populations in B.C., sage-grouse in Canada are now restricted to the far southeastern corner of Alberta and southwestern Saskatchewan. South of the border, they are also found in 11 states in the western United States.

In Canada, the greater sage-grouse is found in the mixed grassland ecoregion, a warm, dry region where the native vegetation has now been significantly reduced. Canadian greater sage-grouse are highly dependent on silver sagebrush, which constitutes 47 to 60 percent of the adult diet in the summer and 100 percent in the winter. The species has very specific habitat requirements at different times of year, including habitat for breeding, wintering, displaying and chick-rearing. If any one of these subtly different habitats is not available then the species will disappear.

Sage-grouse are also notoriously susceptible to disturbance, including industrial activity. Although historic losses of sage-grouse populations were due largely to agricultural conversion of their native habitat, more recent losses in Canada can be placed squarely at the door of poorly-regulated oil and gas development.

As with many grassland rarities, Alberta and Saskatchewan mark the far northern extent of their range. Although there have been predictions that a warming and drying climate in future may lead to a northward expansion of Alberta's Grassland Natural Region, it may arrive too late for the imperilled greater sage-grouse. Based on historical accounts, there has been a 90 percent reduction in the Canadian range and a substantial decrease in the number of breeding locations.

The loss of sage-grouse from the Canadian prairies over the last 50 years has been



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dramatic. From the 613 displaying males counted in Alberta in 1968, the population has plummeted to the 13 males counted in 2014. In Saskatchewan the picture is little better: just 18 males recorded in 2013.

The Sage-Grouse Partnership, initiated by AWA in 2013, offers some optimism that, with sufficient support from different levels of government, local communities and the environmental sector, it may be possible to bring the sage-grouse back from the brink. But only time will tell whether or not it will be enough for this charismatic species. 🐦

Quick Facts:

- *Centrocercus urophasianus*
- Federal status: Endangered
- Provincial status: Endangered
- Length: up to 75 cm
- Weight: Males – up to 2.2 kg; females – up to 1.4 kg
- Interesting fact: The greater sage-grouse is the largest grouse in North America.

Loggerhead Shrike

The loggerhead shrike, like all of the shrike species is a bit of an anomaly. Though it is a “songbird” in every sense of the word, a strikingly handsome bird with a beautiful trilling call, it also possesses a raptor-like hooked beak which it uses to tear apart small mammals and birds. Known as the “butcher bird” it is famous for impaling its victims on thorn bushes and barbed wire fences, creating a gruesome larder to which it can return and feed at its leisure.

Loggerhead shrikes catch the eye. Adults show a bold pattern of dark grey upperparts with a long black tail and black wings. White wing patches are very conspicuous in flight and, when it settles, the striking black bandit mask shows very clearly. The solid black bill has a hook tip which hints at its predatory nature. The name *loggerhead* is a somewhat disrespectful reference to its large head in proportion to the rest of its body.

The loggerhead shrike - *Lanius ludovicianus* - is one of only two shrike species common-

ly occurring in Alberta (the northern shrike is more usually a winter visitor) and it is the only shrike species endemic to (living only in) North America. There are ten recognized subspecies of loggerhead shrike, but the prairie loggerhead shrike subspecies, *Lanius ludovicianus excubitorides*, is the only one to breed in Alberta. Approximately 15 percent of the world's prairie loggerhead shrikes breed in Canada – in Alberta, Saskatchewan and Manitoba – with the rest ranging south through Montana, Wyoming, Colorado, Texas and into northern Mexico.

Like so many of Alberta's endangered species, loggerhead shrikes are restricted mostly to the Grassland region of southeastern Alberta, with a few pairs in the Aspen Parkland. More than other grassland specialists, it requires structure to its landscape, particularly perches – trees, bushes, fence posts or telegraph poles – from which it can launch its hunting forays. Prey includes everything from ground squirrels to mice, lizards to larks, beetles to crickets. Shrikes also require dense scrub for nesting, such as willow or caragana. Nesting is a surprisingly quick process: eggs hatch after 16 days of incubation, usually in June. After another 16 days the chicks are ready to leave the nest and within 35 days of hatching the young are independent and able to forage for themselves.

The Canadian population of prairie loggerhead shrikes has been declining for at least 40 years; in Alberta there was a steady decline of around 1.2 percent every year between 1970 and 2009. Today the Alberta population is estimated at approximately 3,000 pairs. For migratory species, it is important to remember that they may only be summer visitors to Al-



Alberta prairie loggerhead shrike
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berta. Protection of habitat on their breeding grounds in only part of the story; protection of their wintering grounds as well as migration habitat in between is also important. Relatively little is known about exactly where Alberta's shrikes overwinter, though it is thought to be in southwestern United States and Mexico.

The Alberta government lists the main threats to loggerhead shrikes as “habitat loss and fragmentation on the breeding grounds.” It notes that “intensive agricultural practices have converted native grassland with shrubs and shelterbelts to cultivated fields, resulting in the loss of suitable breeding and wintering habitats.”

In July 2014, the Canadian government published a draft *Recovery Strategy for the Loggerhead Shrike excubitorides subspecies in Canada*, which was made available to public comment. AWA offered a number of comments in an attempt to help strengthen the final strategy. Most concerning was the proposed strategy's emphasis on “maintaining” shrike range and population, rather than seeking to *recover* the species. Having delayed 10 years from the initial calls to protect the species, the government's approach seems highly unambitious. Though there was an emphasis in the draft strategy on “protection and enhancement of suitable breeding habitat,” very few concrete measures were laid out to explain how this will be achieved. Though AWA agrees that recovery of the species is “feasible” a great deal more commitment will need to be made before this recovery could be considered likely. 🐦

Quick Facts:

- Loggerhead shrike, *Lanius ludovicianus excubitorides*
- Federal status: Threatened
- Provincial status: Sensitive
- Body length: 21 cm
- Average weight: 35–50 g
- Interesting fact: Loggerhead shrikes impale poisonous prey such as toads or monarch butterflies, then wait for several days to eat them, by which time the poisons have broken down.