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Birds of the Great Plains: Family Corvidae (Jays, Magpies, and Crows)

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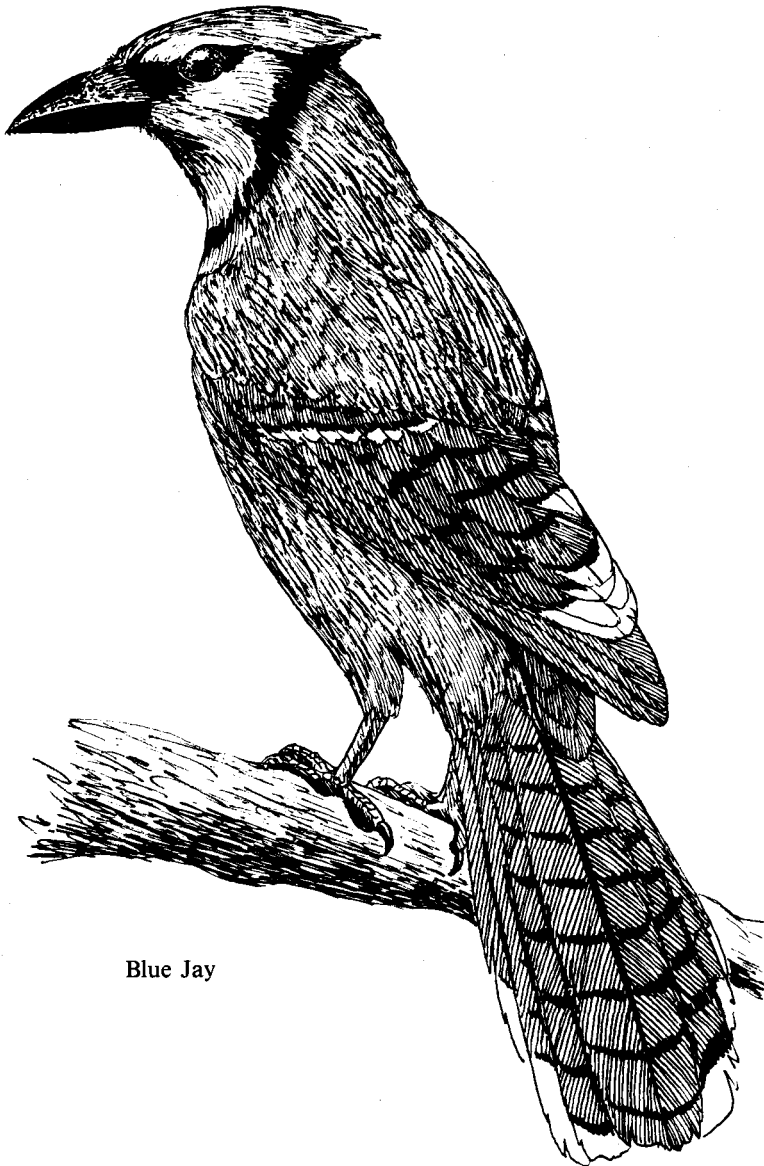
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FAMILY CORVIDAE
(JAYS, MAGPIES, AND
CROWS)



Blue Jay

Gray Jay (Canada Jay)

Perisoreus canadensis

Breeding Status: A common resident of the Black Hills of South Dakota and the coniferous forest areas of north-central Minnesota.

Breeding Habitat: The species frequents coniferous forests, especially dense spruce and pine forests, occasionally extending into mixed woods.

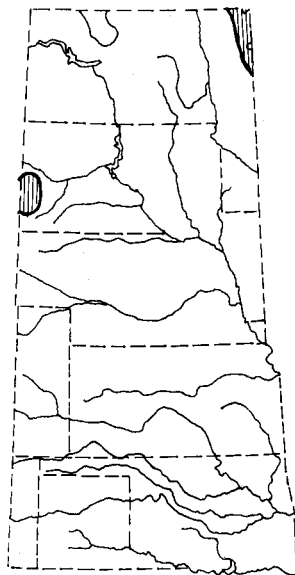
Nest Location: Nests are typically in conifers, either in a crotch or on a horizontal branch near the trunk, often less than 10 feet above the ground. The nest is a fairly bulky accumulation of sticks, twigs, and bark strips, often decorated outside with plant down, cocoons, and spider webs or insect nests. It is usually 7-8 inches in diameter and 3-5 inches high. The lining is of feathers, fur, and plant down, or sometimes of pine needles.

Clutch Size and Incubation Period: From 2 to 5 eggs, usually 3-4. The eggs are grayish to greenish white with small dark spots. The incubation period is 16-18 days. Single-brooded.

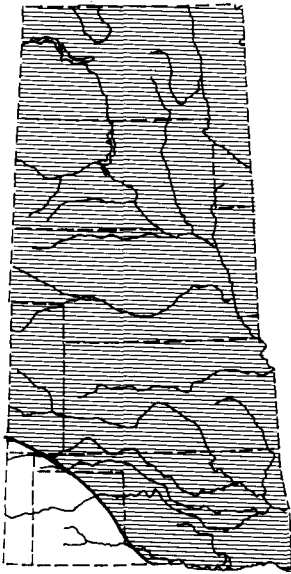
Time of Breeding: Eggs have been reported in the Black Hills in early June, and fledged but dependent young have been seen in mid-June. Egg-laying in Minnesota has been reported as early as March 14, with fledging as early as April 18, and family groups are often seen from June to August.

Breeding Biology: Like many corvids, gray jays regularly cache food, but, in contrast to other species, these birds produce a special saliva that helps bind food particles together so that the mass can be firmly held in position among conifer foliage. Breeding in this boreal species begins very early, with nest-building sometimes beginning in February. Both sexes help build the nest, the female doing most of the actual construction in one observed case. As with other corvids, only the female incubates, and she typically sits on the nest from the time the first egg is laid, although incubation does not begin immediately. Both sexes feed the young, but the male brings most of the food during the first few days after hatching. Fledging occurs approximately 15 days after hatching, and it is likely that the young birds remain with their parents through the first winter of life.

Suggested Reading: Dow 1965; Goodwin 1976.



Blue Jay
Cyanocitta cristata



Breeding Status: Breeds nearly throughout the region, but increasingly infrequent to the southwest, with the general breeding limits probably in southeastern Colorado, the Oklahoma panhandle (Cimarron County), and the northeastern panhandle of Texas (Roberts, Hemphill, and Wheeler counties). The only New Mexico breeding record is for Roosevelt County (*Southwestern Naturalist* 17:432).

Breeding Habitat: The blue jay is widely distributed, in deciduous forests, parks, suburbs, cities, and almost anywhere trees are found in grassland areas.

Nest Location: Nests are in trees, 5–70 feet above the ground. They are fairly large (7–8 inches in diameter), constructed of twigs, bark, and leaves and lined with rootlets. They are normally well hidden, in the forks, crotches, or outer branches of trees, especially coniferous species.

Clutch Size and Incubation Period: From 3 to 6 eggs (15 Kansas clutches averaged 4.1). The eggs are buff or olive with small darker spots. The incubation period is 17–18 days. Single-brooded in the north, multiple-brooded in the south.

Time of Breeding: In North Dakota, nest-building and nests with eggs have been reported from May 7 to June 2, with dependent young seen as late as August 14. In Kansas, egg dates are from April 10 to July 10, with a peak in mid-May. Nest-building and nests with eggs have been seen in Oklahoma (where two broods are common) from March 19 to July 9, and dependent young have been seen as late as August 17.

Breeding Biology: Blue jays are generally found in pairs or family groups, with larger flocks sometimes occurring around feeding areas or during migration, when the young of the year typically leave their parents and move varying distances southward. Paired birds, however, usually winter on their breeding territories. At the onset of breeding, both sexes gather materials and begin nest construction. “False nests” may be initiated when the male brings twigs to the female while she crouches in a particular location, but the actual nest is always constructed elsewhere. Although some first-year birds do breed, this is infrequent, and most actual breeders are at least 2 years old. Normally only females incubate, and males bring food to them while they are on or off the nest. The fledging period is 17–21 days, and fledglings may obtain some food from their parents for as long as 2 months after leaving the nest. However, where two or even three broods are regularly raised it is unlikely that parental care extends much beyond the fledging period.

Suggested Reading: Hardy 1961; Goodwin 1976.



Steller Jay
Cyanocitta stelleri

Breeding Status: Hypothetical. Possibly nests in northeastern New Mexico (considered a rare transient at Capulin Mountain National Monument), but there are no specific breeding records for our area. Also reported as a resident of the Black Hills (A.O.U. *Check-list*), but there is only one recent observation of the species there. Frequently reported in western Nebraska in the nonbreeding season, but no breeding-season observations.

Breeding Habitat: Associated with coniferous forests throughout its range, the species especially frequents the ponderosa pine zone but extends in limited numbers downward into the lower piñon zone and upward into the Engelmann spruce and Douglas fir zones.

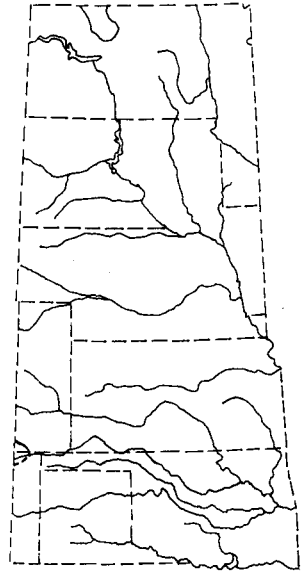
Nest Location: Nests are 4–40 feet above the ground, usually on a horizontal branch of a young conifer. They are bulky, composed of twigs, weed stems, and sticks, and are lined with rootlets and grasses.

Clutch Size and Incubation Period: From 3 to 7 eggs, light blue with darker spotting that varies in color and intensity. The incubation period has not been specifically determined but presumably is 17–18 days. Single-brooded.

Time of Breeding: Colorado egg dates range from May 3 to May 30, and nestlings have been reported as early as June 1.

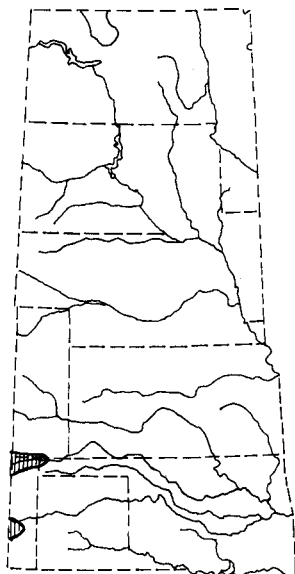
Breeding Biology: Steller jays are usually to be found in pairs, but they sometimes form small parties when aggregating at a food source or mobbing a predator. Paired birds tend to remain in or near their breeding territories throughout the year, but immature birds may wander about in the winter. Little has been written on nesting biology, but both sexes help build the nest and probably only the female incubates, although it has been suggested that both sexes incubate in Alaska. The fledging period has not been specifically determined, but the young birds are fed for a month or more after they fledge and presumably remain with their parents for most of their first year.

Suggested Reading: Brown 1964; Goodwin 1976.



Scrub Jay
Aphelocoma coerulescens

Breeding Status: Apparently limited mostly to northeastern New Mexico (Quay and Union counties; no breeding records, but an



abundant permanent resident at Capulin Mountain National Monument). Also breeds in northwestern Cimarron County, Oklahoma, and in Baca County, Colorado.

Breeding Habitat: The species is associated with scrub oak, piñon-juniper, and less frequently with mixed oak and ponderosa pine habitats. Borders of brushy ravines and wooded creek bottoms are highly preferred.

Nest Location: Nests are usually in piñons, oaks, or tall shrubs, less than 10 feet above the ground, and are built of interlaced twigs forming a platform 6-9 inches in diameter. The cup is lined with rootlets or horsehair.

Clutch Size and Incubation Period: From 2 to 7 eggs, usually 4-6. The eggs vary in color from pale green to reddish or bluish, with darker spotting. The incubation period is about 16 days. Probably single-brooded.

Time of Breeding: In Oklahoma, nests with eggs as well as young about to fledge have been reported in late May. In southern Colorado the average date for fresh eggs is about the first week of May, but nestlings have been seen in Baca County as early as May 7.

Breeding Biology: Like most members of this family, scrub jays tend to remain rather permanently paired and live in such pairs or at most in family groups after the breeding season. They are highly territorial. When one member of a pair is on the ground or in low cover, the other member often stations itself as a "sentry" at some convenient vantage point. This often occurs during nest-building, when both pair members gather materials. At least in the Florida race, pairs often allow one or more immature birds (typically their own offspring) to share their territory. These birds not only help defend the territory but also may help rear the young. The female does all the incubation and brooding, but she is fed by the male. As many as three nonbreeding "helpers" have been observed at a single nest, but only older offspring of the pair have been observed actually feeding young. The young birds remain in the nest for about 18 days, but after becoming independent of their parents for food they may live with them for a year or more. By the time they are 2 years old they usually leave their parents' territory permanently and attempt to breed.

Suggested Reading: Woolfenden 1975; Hardy 1961.

Black-billed Magpie

Pica pica

Breeding Status: Breeds generally over the western parts of the region, regularly east to the James River in North Dakota (rarely to Clay, Marshall, and Roseau counties in Minnesota), the Missouri Valley of South Dakota, east-central Nebraska (to Greeley, Howard, and Clay counties), north-central Kansas (east to Clay County), the Oklahoma panhandle (Cimarron County), and northeastern New Mexico (Union County).

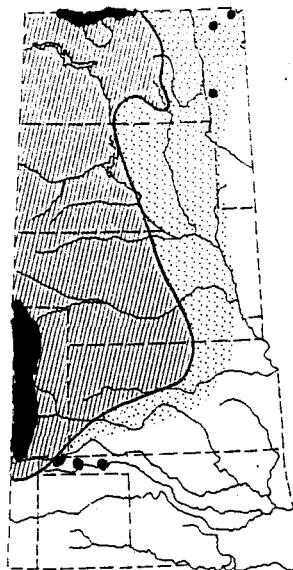
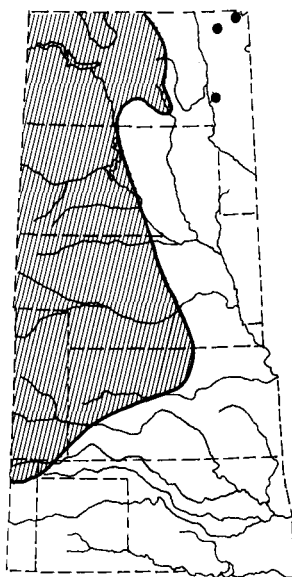
Breeding Habitat: The species generally frequents river-bottom forests and forest edges but ranges out into more arid environments wherever there are thickets of shrubs or small trees.

Nest Location: Nests are in dense bushes or small trees, especially thorny ones. Nests are masses of sticks of varying sizes and may be up to several feet across. They have a lateral entrance leading to an egg chamber consisting of a mud cup lined with rootlets, grass, and hair.

Clutch Size and Incubation Period: From 4 to 7 eggs (7 North Dakota nests averaged 5.4). The eggs are greenish gray with heavy brown blotching. The incubation period is 16-20 days, averaging about 18. Single-brooded.

Time of Breeding: In North Dakota the breeding season is from late April to early August, with egg dates extending from April 29 to June 16. Kansas egg dates are from April 11 to June 20, with a peak in mid-May, and Oklahoma egg dates are from April 17 to May 10.

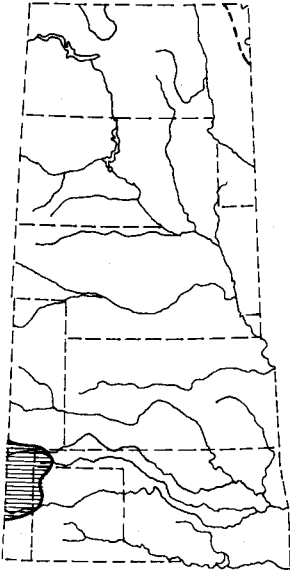
Breeding Biology: At least in some areas, pairs often remain in the general vicinity of their breeding areas through the winter period, and many use old nests for nighttime brooding during cold weather. Rarely, however, are old nests used again for nesting; new ones are typically built each year and for each breeding attempt. In eastern Wyoming, birds may begin carrying mud to anchor nest bases in late February, but intensive nest-building does not occur until mid-March or April. Both sexes gather materials, the male bringing more sticks than the female, and rarely each partner will begin a nest at a different location. A surprisingly long average period of 43 days is required to complete a nest, and during the latter part of this time intensive displaying also occurs, especially courtship feeding of the female. The female does all the incubating, but her mate feeds her throughout the incubation period. Both sexes feed the nestlings equally, and they remain in the nest for an average of nearly 4 weeks. After the young are able to fly well, the family gradually wanders out of its nesting area. Although it is known that birds



sometimes acquire territories and breed when a year old, it is likely that most initial breeding occurs in the second year.

Suggested Reading: Erpino 1968; Goodwin 1976.

Common Raven *Corvus corax*



Breeding Status: Resident in coniferous forests of north-central Minnesota. Once bred in North Dakota but was extirpated; now also apparently absent from southwestern South Dakota, western Nebraska, and western Kansas. Ravens still breed in northeastern New Mexico (locally at Conchas Reservoir and Capulin Mountain National Monument, casually to Clayton, Union County), locally in Cimarron County, Oklahoma, and rarely in the western panhandle of Texas (Deaf Smith County).

Breeding Habitat: Common ravens are generally associated with wilderness areas of mountains and forests; in our area they are mostly limited to a few bluffs or cliffs providing inaccessible nest sites, or to dense coniferous forests.

Nest Location: Nests are usually in tall coniferous trees or on cliff ledges. Large branches and sticks provide the bulk of the nest, which is deeply cupped and lined with bark shreds, grasses, and hair.

Clutch Size and Incubation Period: From 3 to 6 eggs, usually 4-5. The eggs are greenish with darker brown to olive markings. The incubation period is 18-20 days. Single-brooded.

Time of Breeding: In New Mexico, nests with eggs have been seen in early April, and nestlings have been noted from late May to early June. Nestlings in Colorado have been seen as early as mid-April.

Breeding Biology: The largest of all passerine birds, ravens also have the broadest worldwide distribution of any of the Corvidae. But apart from their size the birds are typical crows. Pairs form rather large territories and largely remain within them, whereas immature birds and adults lacking territories tend to roam about in flocks. In agonistic and sexual situations ravens perform a "self-assertive" display in which they raise the feathers above the eyes, and later all the head and throat feathers, producing a very shaggy-headed appearance, often followed by bowing and crowing while spreading the tail. The nest is built in an inaccessible location by both members of the pair, and the same site is sometimes used in successive years. From 1 to 4 weeks are spent in nest-building, and an additional day is required for each egg

that is laid. Although the female spends most of her time on the nest as soon as the first egg is laid, incubation does not begin until the clutch is complete or nearly complete. Only the female incubates, but she is fed by the male, and both sexes feed the young. The female broods them for about 18 days, but they do not fledge until they are about 6 weeks old. Thereafter they remain in the care of their parents for nearly half a year.

Suggested Reading: Bent 1946; Goodwin 1976.

White-necked Raven

Corvus cryptoleucus

Breeding Status: Has bred rarely in south-central Nebraska (Adams and Kearney counties, one record for Dundy County); the northern edge of the normal breeding range is northwestern Kansas (Rawlins County). There are a few breeding records for eastern Colorado (Cheyenne, Kiowa, Kit Carson, and Lincoln counties), and nesting also occurs in the Oklahoma panhandle southward to the Red River, possibly as far east as Jefferson County. Breeding also occurs locally in the Texas panhandle and northeastern New Mexico (Union, Quay, and Roosevelt counties).

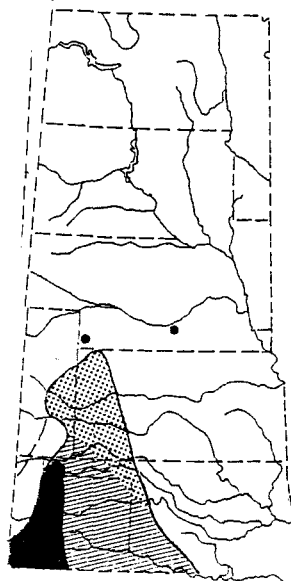
Breeding Habitat: Open and arid grassland habitats, with scattered trees, cactus, or yucca are favored; the species is generally not associated with river valleys or forested areas.

Nest Location: Nests are placed on windmill towers, isolated trees, and telephone poles. Typically the nests are made of sticks, but in some areas wire scraps are commonly incorporated. The nests are only slightly larger than those of crows (about 20 inches in diameter) and are usually lined with grass, bark, and hair or fur. They are often used year after year and gradually increase in size. Nests are 5-50 feet high, averaging about 20 feet.

Clutch Size and Incubation Period: From 3 to 8 eggs (averaging 4.7 in a New Mexico study). The eggs are pale green to grayish green with highly variable darker spotting or streaking. The incubation period is 20-22 days. Single-brooded.

Time of Breeding: In Kansas, the eggs are laid from late March to early May. In Texas, egg records extend from March 11 to July 3, but the latest date for nestlings in Oklahoma is June 16.

Breeding Biology: Outside of the breeding season these ravens often form rather large flocks and roost communally in canyons or gulches. Almost nothing is known of their social behavior, but they perform a self-assertive display in which they expose the

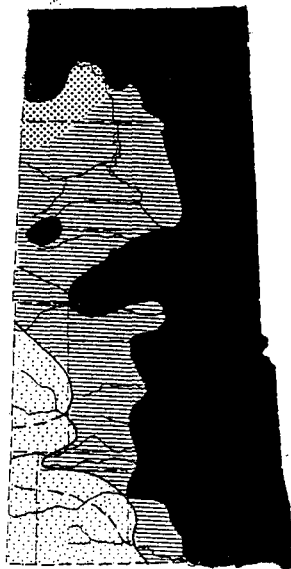


hidden white bases of the neck feathers in hostile situations. Nesting sometimes is semicolonial, but this probably reflects a shortage of suitable nest sites rather than true colonial tendencies. Nesting occurs relatively late and is spread over a rather long period, perhaps because of the timing of late spring rains rather than temperature limitations. Other aspects of breeding biology are probably much like those of typical ravens.

Suggested Reading: Davis and Griffing 1972; Goodwin 1976.

American Crow (Common Crow)

Corvus brachyrhynchos



Breeding Status: Nearly pandemic, breeding in suitable habitats throughout the entire region except the nearly treeless areas of the Texas panhandle, adjacent New Mexico, and southeastern Colorado.

Breeding Habitat: Forests, wooded river bottoms, groves, orchards, suburban areas, parks, and woodlots are favored habitats.

Nest Location: Nests are in deciduous or coniferous trees, with conifers and oaks seemingly preferred. They are usually 20–60 feet above the ground, on horizontal branches near the trunk, and are about 2 feet in diameter. Where trees are lacking, as on prairies, nesting on the ground, on shrubs, or on telephone pole crossbars is fairly common. The large platform of sticks, twigs, bark, and similar materials is well cupped and lined with various softer materials such as rootlets, hair, and feathers.

Clutch Size and Incubation Period: From 3 to 8 eggs (10 North Dakota nests averaged 4.9, and 19 Kansas clutches averaged 4.2). The eggs are bluish to grayish green with darker spotting of gray or brown. The incubation period is 18 days. Probably single-brooded in our area.

Time of Breeding: North Dakota egg dates are from April 11 to June 10, and those from Kansas range from March 10 to May 31, with most eggs laid between March 21 and April 10. Oklahoma breeding dates are from March 5 (eggs) to May 31 (recently fledged young).

Breeding Biology: In our area crows begin to flock after the breeding season, and at least in northern areas they tend to migrate some distance southward, where they use massive roosting areas. It is likely, however, that pairs are maintained within these large flocks, and shortly after returning to the breeding areas the birds typically become well spaced and territorial. Crows utter a surprisingly broad range of notes, including more

than a dozen distinct calls, and in addition they commonly mimic other species. Both sexes help build the nest, and although it has been reported that both sexes incubate this seems unlikely in light of what is known of related species. The young birds fledge in about 36 days but remain with their parents for a protracted period.

Suggested Reading: Chamberlain and Cornwell 1971; Goodwin 1976.

Fish Crow

Corvus ossifragus

Breeding Status: Limited to eastern Oklahoma, where it is resident along the Arkansas and Red rivers, west to Muskogee and Idabel respectively.

Breeding Habitat: Fish crows are associated with forest-lined rivers and lakes, coastal marshes and beaches, and brackish bays. They are often found near heronries, from which they steal eggs.

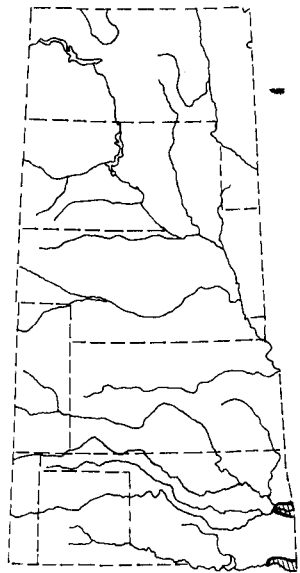
Nest Location: Nests are solitary or in loose colonies near the tops of deciduous or coniferous trees, usually 10-90 feet from the ground, or, rarely, in tall shrubs. The nest is usually near water and is placed in a large fork or on a horizontal limb close to the trunk. In size and appearance it closely resembles that of the common crow.

Clutch Size and Incubation Period: From 4 to 5 eggs, rarely more. The eggs are slightly smaller than those of the common crow but otherwise identical. The incubation period is 17-18 days. Single-brooded.

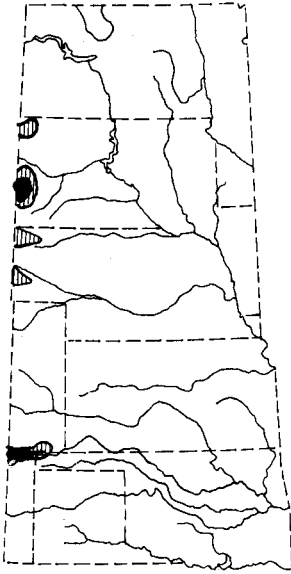
Time of Breeding: One nest with eggs was found in Oklahoma in late April; the fish crow probably nests about the same time as the common crow in that region, during March and April.

Breeding Biology: Although rather large groups of these birds may be seen during the winter, the pair is the nuclear social unit, as in other crows. Territoriality is not highly developed, however, and colonial nesting is frequent, with nests typically situated in neighboring trees. Fish crows eat the eggs and young of other birds, fish found dead or stranded, crabs, shrimp, and other aquatic animals, and they often hover above water when seeking food. Little has been written on their breeding biology, but it presumably differs little from that of the common crow. Apart from this crow's rather different ecology and its hoarser and more nasal calls, the two species are very similar.

Suggested Reading: Bent 1946; Goodwin 1976.



Pinyon Jay
Gymnorhinus cyanocephalus



Breeding Status: A common permanent resident of the lower elevations of the Black Hills of South Dakota and also a resident of the Cimarron Valley of northeastern New Mexico, adjacent Colorado, and extreme northwestern Oklahoma.

Breeding Habitat: In the Black Hills, pinyon jays are found in pine forests where the soil is dry and the trees are scattered and small. They are associated with the piñon-juniper zone of southern Colorado and northeastern New Mexico.

Nest Location: Nests are 6–20 feet above the ground, usually in small piñon pines, and normally are rather exposed, at some distance from the center of the tree, often on the lowest horizontal limb. Nests are constructed of twigs with a lining of yucca, sagebrush, rootlets, hair, and sometimes feathers.

Clutch Size and Incubation Period: From 3 to 6 eggs, usually 4–5. The eggs are bluish white to grayish white with brown dots and spots. The incubation period is 18 days. Single-brooded, but known to renest.

Time of Breeding: Nesting in the Black Hills occurs in April and May, with dependent young seen as early as mid-April and as late as June 19. Colorado egg dates range from April 10 to May 5.

Breeding Biology: Pinyon jays are highly gregarious, usually gathering in flocks of up to 50 birds for much of the year. Pair bonds are probably rather permanent in these flocks, and as early as mid-November males begin feeding their mates by transferring pine seeds or other morsels. This behavior is also performed by first-year birds, although initial breeding may not occur until they are at least another year older. Later, females actively solicit feeding by courtship begging, a display that continues through nesting and stimulates the male to feed his incubating mate. In late stages of courtship, a male may pick up a bit of vegetation, present it to his mate, then fly up into a nearby tree, as if to lure her away from the flock. In this way, specific courtship crotches or branches are established, although the actual nest is often built in another location. Nests are usually placed on the south side of trees, probably for warmth. They are built by both members of a pair, usually over about a week, and the first egg is laid about 2 days later. Most birds in a colony begin and complete their nests at nearly the same time; the colony's location is dependent on the caches of pine seeds from the previous fall. Fledging occurs about 3 weeks after hatching, and the parents remain with their young for a prolonged period, continuing to feed them well after they are fledged.

Suggested Reading: Bent 1946; Balda and Bateman 1973.