Status:
Willow flycatchers had a slight upward trend (Saab and Groves 1992). Dobkin (1994) reported stable populations of willow flycatchers in Idaho and significantly increasing numbers in Montana. However, portions of the central United States and most of the southwest United States have had downward population trends with the decline being precipitous in recent years (Dobkin 1994). Ritter (1996) noted that willow flycatchers had a high rating for threats to breeding range. Stokes and Stokes (1996) denoted that willow flycatchers are significantly declining throughout their range. The southwestern subspecies of the willow flycatcher is listed as Endangered by the Fish and Wildlife Service in Arizona and New Mexico (Unitt 1987). Willow flycatchers were first added to the Idaho BLM Sensitive Species list in 1996.

Threats:
Declines of willow flycatchers have been attributed to riparian habitat degradation by livestock grazing (Mosconi and Hutto 1982, Taylor 1986, Knopf et al. 1988), heavy parasitism by brown-headed cowbirds (Sedgwick and Knopf 1988), and deforestation of winter habitat (Dobkin 1994). Willow flycatcher breeding populations increase in response to reduction of cattle grazing in riparian zones and termination of willow control in riparian habitats (Taylor 1986, Taylor and Littlefield 1986). Douglas et al. (1992) noted that a number of man's activities including timber harvest, improper grazing, or wetland drainage, could adversely impact the riparian vegetation and the associated bird community.

Swainson's thrush (*Catharus ustulatus)*
Description:
The Swainson's thrush ranges from 6.5 to 7.75 inches in length (Udvardy 1977, Stokes and Stokes 1996). Swainson's thrush is a uniform olive gray brown on the head, back and tail with a buffy colored eye-ring and cheek patch (Peterson 1990). They also have a buffy breast marked with brown spots and white belly (Udvardy 1977, Peterson 1990). Similar species include the veery and hermit thrush (Peterson 1990, Stokes and Stokes 1996). Veeries are not known to occur in the Jarbidge Resource Area. Hermit thrushes have a rusty colored tail and the white eye-ring is much less distinct (Peterson 1990, Stokes and Stokes 1996). The songs of the Swainson's thrush and hermit thrush are superficially similar. Udvardy (1977) and Peterson (1990) commented that the hermit thrush raises and lowers its tail.

Distribution:
Winter distribution of Swainson's thrush extends from central Mexico well into the South America countries of Peru, Bolivia, Paraguay and Brazil (Ehrlich et al. 1988). Breeding range is reported to be from central Alaska eastward through the boreal forest to New Foundland, south through New England and into West Virginia in the Appalachian Mountains (Udvardy 1977). In the Western United States, Swainson's thrushes breed from coastal California northward to Alaska. In Oregon the distribution shifts eastward into northern Nevada, Utah, and Wyoming, then northward to the boreal forest in Canada (Udvardy 1977, Stokes and Stokes 1996). Stephens and

Sturts (1991) denoted that Swainson's thrush breeds over most of Idaho. Swainson's thrush have not been observed in the Jarbidge Resource Area to date.

Habitat:
Udvardy (1977), Mannan and Meslow (1984), Finch and Reynolds (1988), and Saab and Groves (1992) report that Swainson's thrushes occur in a variety of habitats including deciduous and coniferous forests, dense second-growth thickets, old-growth conifer forests, and riparian zones. Swainson's thrush appears to occur at higher densities in spruce/fir forests than aspen forests (Finch and Reynolds 1988). Dobkin (1994) comments that Swainson's thrush needs a shrubby understory and is usually found near water.

Biology:
Males establish a territory soon after arrival from their wintering area in late May to early June (Sealy 1974). Males sing to court females and defend their territory from other Swainson thrush males. A cup type nest is made low in a shrub or less frequently in a conifer (Ehrlich et al. 1988, Dobkin 1994). Nesting materials used by Swainson's thrush include weed stems, rotten wood, bark, twigs, grass and moss. Occasionally, there is a middle layer of mud then the interior is lined with leaves, lichen, rootlets, and plant fibers (Ehrlich et al. 1988). Nests are located frequently on a horizontal branch anywhere from 2 to 20 feet above the ground (Stokes and Stokes 1996), usually in shrubs but occasionally in a small conifer (Dobkin 1994). The clutch size varies from 3 to 5 light blue eggs with brown spots (Stokes and Stokes 1996). Incubation lasts about 14 days and the nestlings fledge in another 14 days. Sealy (1974) wrote that fledging occured in early to mid July in British Columbia. The Swainson thrush is believed to only raise one brood during the breeding season (Erhlich et al. 1988). Swainson's thrush uses a variety of foraging strategies to catch insect prey including pouncing of ground insects from a perch, gleaning from foliage and while hovering, gleaning from the ground, and hawking flying insects (Ehrlich et al. 1988, Holmes and Robinson 1988, Dobkin 1994). Prey items are primarily insects, spiders, caterpillars, ground dwelling invertebrates, and small fruits (Dobkin 1994, Stokes and Stokes 1996). Sealy (1974) speculated that competition between Swainson's thrush and hermit thrush were reduced because the nesting times of the two species were different. Young hermit thrushes fledge about 3 weeks before Swainson's thrushes (Sealy 1974). Ehrlich et al. (1988) mentioned that Swainson's thrush nests are only rarely parasitized by brown-headed cowbirds. Cherry (1985) described fall movements of Swainson's thrush. During migration Swainson's thrushes can be found in mixed flocks with warblers feeding in the tree canopy (Cherry 1985, Stokes and Stokes 1996). Dobkin (1994) commented that Swainson's thrushes prefer dense woodlands of all types during migration.

Status:
Idaho BLM has placed the Swainson's thrush on its Sensitive Species list. Swainson's thrush populations were listed as declining by Saab and Groves (1992). Dobkin (1994) mentioned that the Idaho population of Swainson's thrush was declining in Idaho, but seems stable in Montana. He noted an overall slight decline of Swainson's thrush in the West. Ritter (1996) considered a 26 year decline in Swainson's thrush populations and threats to winter habitat in the ranking of this

species. In contrast, Stokes and Stokes (1996) indicated that the BBS data in the West showed a slight population increase, with rapid declines in the central United States.

Threats:
Declines in Swainson thrush numbers in some areas have been linked to loss of winter habitat in Central America and tropical deforestation (Marshall 1988, Morton 1992, Dobkin 1994). In their breeding habitat, Finch and Reynolds (1988) found that Swainson's thrush are closely associated with old-growth mixed conifer forests which have been substantially reduced and fragmented by logging (Tobalske et al. 1991). Mannan and Meslow (1984) did not document any Swainson's thrushes in a thinned forest, but did find this species in old-growth forest. Habitat fragmentation may also lead to increased rates of nest parasitism by brown-headed cowbirds (Gates and Gysel 1978, Temple and Cary 1988, Bollinger and Linder 1994, Dobkin 1994) and nest predation (Wilcove 1985, Martin 1988, Yahner and Scott 1988, Bollinger and Linder 1994).

Black-throated gray warbler (*Dendroica nigrenscens*)
Description:
Black-throated gray warblers are about 4.5 to 5 inches in length (Udvardy 1977, Stokes and Stokes 1996). Males have a black-throat, a black cheek patch, a black forehead and a black cap, all separated by white stripes between the black areas. A yellow spot is located between the eye and the bill (Udvardy 1977, Peterson 1990, Stokes and Stokes 1996). Males have a slate gray back. They also have a few black streaks on the upper breast and sides of the breast, two whitish wing bars, and white outer tail feathers (Peterson 1990). Females are dark gray rather than black and lack the black throat patch (Peterson 1990, Stokes and Stokes 1996). Based on its general appearance, the black-throated gray warbler could be confused with the mountain chickadee. However, mountain chickadees have a white stripe above the eye, white cheeks, and are a medium gray on the back. Mountain chickadees also lack wing bars and white outer tail feathers, and have no black streaking on the breast.

Distribution:
Most black-throated gray warblers winter in southern and central Mexico, but the winter range extends north to southern California, Arizona, and New Mexico (Udvardy 1977, Ehrlich et al. 1988). This species' summer distribution is along the Pacific Coast from southern Alaska and British Columbia south to central California, then inland to central Washington, south and east across southern Idaho, and south into the mountains of Nevada Utah, southwestern Colorado, Arizona, and New Mexico (Udvardy 1977). The black-throated gray warbler is at the edge of its geographic breeding range in the southern portion of Idaho (Stephens and Sturts 1991).

Habitat:
Black-throated gray warblers nest in a variety of habitats across their geographic range, including oak scrub, chaparral, shrubby openings in coniferous forests, and pinyon-juniper (Bent 1953, Udvardy 1977, Morrison 1982, Sedgwick 1987, Ehrlich et al. 1988). In the Jarbidge Resource Area, black-throated gray warblers are known to nest in open juniper communities having a

sagebrush understory. Finton and Scott (1984) found black-throated gray warblers nesting in areas with relatively high juniper canopy coverage. They have been observed in mountain mahogany habitats, but nesting in this habitat type has not been confirmed. Specific locations where black-throated gray warblers have been seen include Columbet Creek, Devil Creek, and Brown's Bench.

Biology:
Black-throated gray warblers likely arrive in southern Idaho in May. Males establish territories shortly after arriving, which is typical for most warblers (Morse 1989). No courtship displays are described for this species. Males sing in defense of their territory throughout the nesting period (Bent 1953). Morrison and Hardy (1983) listed three distinct songs for male black-throated gray warblers. Two songs were used for territorial defense and a third softer song was used when a female black-throated gray warbler was near the male (Morrison and Hardy 1983). Nesting occurs in late May and well into June. The nest is a cup woven from grasses and is located in a shrub or tree, usually within 10 feet of the ground (Fitton and Scott 1984, Ehrlich et al. 1988, Stokes and Stokes 1996). Females lay 3 to 5 whitish to cream colored eggs with brownish speckles. Ehrlich et al. (1988) and Stokes and Stokes (1996) noted that little is known about the breeding biology of black-throated gray warblers. Bent (1953) did not identify incubation or fledging periods for black-throated gray warblers. Based on information in Morse (1989) for other warblers, incubation likely takes 11 to 13 days. If typical of other warblers the young fledge after about 8 to 10 days (Morse 1989). Bent (1953) speculated that the female did all of the incubation and brooding, but stated that both parents fed the young. Although adults of some warbler species continue feeding the young several days after fledging (Morse 1989), it is not known if black-throated gray warblers exhibit this behavior. During nesting, the diet of this warbler species is primarily insects. Black-throated gray warblers hawk and glean insects from branches and foliage (Ehrlich et al. 1988, Stokes and Stokes 1996) with very little flycatching (Morrison 1982). Specific prey categories were not listed. Bent (1953) noted that the diet of black-throated gray warblers also included catepillars. Morrison (1982) found that black-throated gray warblers gleaned about 80% of their foraging time. Male black-throated gray warblers forage higher in trees than do the females (Morrison 1982). Black-throated gray warblers likely migrate from southwestern Idaho in September. Ehrlich et al. (1988) noted that brown-headed cowbirds rarely parasitize the nests of black-throated gray warblers. Information on courtship behavior, territory size, nesting territory fidelity, and longevity for this species are lacking.

Status:
Idaho BLM recently added the black-throated gray warbler to its Sensitive Species list. Saab and Groves (1992) note that there is not enough data to assess whether this species' population is increasing or decreasing. Ritter (1996) listed threats to its breeding range and winter distribution as concerns for black-throated gray warblers. Stokes and Stokes (1996) indicated that the population trends for black-throated gray warblers are slightly up.

Threats:
Little is known about possible threats to black-throated gray warblers. This species was not included in the grazing/neotropical bird studies reviewed by Bock et al. (1993). The expansion of

brown-headed cowbirds into throughout the West may result in increased nest parasitism (Dobkin 1994). In other areas large scale juniper control projects or logging in other habitats may fragment habitat in some areas or result in local declines (Sedgwick 1987). Because of the limited habitat of this species in the Jarbidge Resource Area, it would most likely be affected by fire or chaining of juniper habitat. The Jarbidge Resource Area has no juniper or mountain mahogany treatments planned.

MacGillivray's warbler (*Oporornis tolmiei*)

Description:

MacGillivray's warblers have a gray head. The gray extends from the neck down to the upper breast forming a hood (Peterson 1990). MacGillivray's warblers have an incomplete white eye-ring, an olive green to brownish back, and a yellow belly (Udvardy 1977, Peterson 1990, Stokes and Stokes 1996). Female MacGillivray's warblers are the same size as the males about 4.75 to 5.5 inches, but slightly duller in color (Udvardy 1977). In the Jarbidge Resource Area this is the only songbird with a gray hood and yellow belly. The yellow-breasted chat has a yellow throat and breast, a white belly, and a white eye marking from the upper mandible to the eye. Yellow-breasted chats are also at least 1 inch larger.

Distribution:

MacGillivray's warblers winter from central Mexico and into Panama (Ehrlich et al. 1988, Stokes and Stokes 1996). Breeding habitat extends from the southern Yukon south to central California, southern Nevada, central Arizona, and southern New Mexico (Udvardy 1977). Stephens and Sturts (1991) indicated that MacGillivray's warblers were found in suitable habitat throughout the state. A few MacGillivray's warbler's have been documented in the Jarbidge Resource Area and all were in the southern portion of the area. One was in a riparian zone, Cedar Creek, and the others were in an aspen stand with a shrubby understory along Bear Creek.

Habitat:

Riparian thickets of willow or alder, shrubby edges of coniferous or deciduous forests (Mosconi and Hutto 1982, Mannan and Meslow 1984, Ehrlich et al. 1988, Douglas et al. 1992, Dobkin 1994), as well as, brushy areas from old burns or clear cuts (Morrison 1981, Udvardy 1977) are identified as the main breeding habitats for MacGillivray's warblers. Finch and Reynolds (1988) noted that aspen stands used by MacGillivray's warblers contained either a short or tall shrub understory.

Biology:

MacGillivray's warblers migrate back to the area in the late spring May and June. Pitocchelli (1995) comments that this species is secretive during migration and that there is not data on whether or not males and females migrate together. Males establish territories soon after returning from the wintering area. Pitocchelli (1995) described the MacGillivray warbler's song as "churry churry churry churry cheery cheery", however, the amount of repetition varies with individuals. If typical of other warblers, the male defends the territory by singing and chasing

other males of the same species from its territory. Pair formation occurs shortly after their arrival in the nesting habitat, but courtship has not been researched (Pitocchelli 1995). Females lay 3 to 6 eggs in a cup shaped nest woven from weed and grass stems, then lined with fine material (Ehrlich et al. 1988, Stokes and Stokes 1996). The eggs are whitish to creamy colored speckled with browns (Ehrlich et al. 1988). Nests are placed either on the ground or low in a shrub (Dobkin 1994, Stokes and Stokes 1996). Shrubs used for nesting are known to include mallow ninebark, thimbleberry, mountain snowberry, twinberry, and willow. MacGillivray's warblers incubate their eggs for about 11 days (Ehrlich et al. 1988, Stokes and Stokes 1996). The young fledge in 8 to 10 days (Ehrlich et al. 1988, Stokes and Stokes 1996). Females are believed to do all of the incubation and brooding (Pitocchelli 1995). Males bring food to the female while she incubates the eggs and broods the young. If like other warblers, after a few days the female also forages for the young. Male and female MacGillivray warbers tend the fledglings (Pitocchelli 1995). Diets of MacGillivray's warblers consist primarily of insects (Hutto 1981a, Morrison 1981) which are gleaned from the foliage low in shrubs, branches and the ground (Hutto 1981b, Dobkin 1994). Pitocchelli (1995) wrote that the diet of this warbler species includes true bugs, leaf hoppers, beetles, bees, wasps, ants, weevils, and caterpillars. McGillivray's warblers are also known to eat sap from sapsucker wells in willows (Dobkin 1994). Stokes and Stokes (1996) show that MacGillivray's warblers raise only 1 brood per breeding season, but based upon fledging dates renesting following predation is likely. Ehrlich et al. (1988), Dobkin (1994), and Pitocchelli (1995) remarked that the breeding biology of MacGillivray's warbler is poorly researched. MacGillivray warbler territories range in size from 2 to 4 acres during the nesting-fledging period (Morrison 1981a, Blakesley and Reese 1988, Pitocchelli 1995). Stokes and Stokes (1996) mentioned that MacGillivray's warblers hop rather than walk when they move along the ground. Fall migration likely occurs from late August through September (Pitocchelli 1995) in Idaho. Ehrlich et al. (1988) commented that cowbirds rarely parasitize McGillivray's warbler nests, but this based is upon information from Alberta (Pitocchelli 1995). Hutto (1981a) indicated that MacGillivray warblers defend foraging territories during the winter.

Status:

Saab and Groves (1992) indicated that MacGillivray's warbler populations were slightly up. Dobkin (1994) stated that numbers appeared to be declining in Idaho, but stable in Montana, and slightly down overall in the West. There have been decreases in the breeding distribution, wintering distribution, and a 26 year decline in the population trend for MacGillivray's warblers (Ritter 1996). MacGillivray's warblers are declining in the West and declining more rapidly in the eastern part of their range (Stokes and Stokes 1996). Idaho BLM added the MacGillivray's warbler to the Sensitive Species list in the fall of 1996.

Threats:

Pitocchelli (1995) commented that logging activities that released shrubby understory would likely benefit the MacGillivray's warbler. However, he also commented that planting monocultures of pine trees would likely have a long term detrimental impact on this species. In fragmented or degraded habitats cowbird nest parasitism or nest predation may be greater than in intact habitats, as has been demonstrated for other species (Gates and Gysel 1978, Brittingham and Temple 1983, Johnson and Temple 1990, Bollinger and Linder 1994). Finch (1989), Douglas et al. (1992) and