

## Management Indicator Species for the New Plan

Success in maintaining and restoring composition, structure, and function of forest ecosystems within desired ranges of variability is reflected by both changes in forest condition and by levels of management and other effects that are shaping these communities. Monitoring will include tracking the abundance of major forest cover/community types and levels of management activities conducted to maintain and restore desired conditions. Population trends and habitats of Management Indicator Species will be monitored to help indicate effects of national forest management within selected communities.

**Indicator:** Chestnut-sided Warbler (*Dendroica pensylvanica*)



From USGS Patuxent Bird ID InfoCenter

**Reasons for Selection:** Changes in presence of this species in areas that provide high elevation early-successional habitats will be used to indicate effectiveness of management in achieving desired conditions within these sites.

### Ecology & Life History

**Basic Description:** A small songbird.

**General Description:** Adult male: Entire crown bright yellow; patch on side of head behind eye white; line from base of bill to eye and extending down side of throat black; two yellowish white wing bars; back bright olive-green, streaked with black; tail black with white patches near tip; under parts white, bordered conspicuously along sides with bright chestnut. Adult female: Similar but colors duller and area of chestnut more restricted. (AOU 1998).

**Reproduction Comments:** Apparently monogamous.

Nesting in shrubby habitat close to the ground, sometimes deciduous trees. In Ontario, most commonly in hazel (47%), RUBUS (28%), maples (17%), and alder (7.6%). In a small crotch or within a group of thin vertical stems (Peck and James 1987). Average nest height 0.6 m, rarely up to 2 m (Kendeigh 1945, Baicich and Harrison 1997).

Nest built by female. A compact cup of fine grasses, bark fibers, shredded weed stems, and plant down. Lined with fine grasses and hair. Typically 3-5 eggs (usually 4), laid mostly in late May and June. Eggs white, creamy or pale greenish. Incubation 11-12 days by female only (Baicich and Harrison 1997). Female broods; male visits nest and feeds. Young leave nest at 10-12 days and move to low thickets where they are fed and tended by parents young (Richardson and Brauning 1995). Rarely two broods per season (Andrle and Carroll 1998).

### **Ecology Comments**

Highly specialized in its habitat and foraging niche, which probably limited its distribution prior the 1800s (AOU 1998). Was largely dependent on natural disturbance, occupying sites of former forest fires and windstorm blow downs, stream-bank areas where flooding periodically created early-successional habitat, and early-successional growth around Beaver (*CASTOR CANADENSIS*) ponds (Richardson and Brauning 1995, Askins 2000).

Territorial during breeding season; male chases intruders from territory. Solitary and territorial in winter, but single birds frequently join mixed foraging flocks as they pass through their territory (Curson et al. 1994, Howell and Webb 1995). Various reported as highly intraspecifically territorial or variable; maintains small territory around antwren territory (Greenberg 1984).

### **Long Distance Migrant: Y**

**Migration Comments:** A long-distance nocturnal neotropical migrant. Fall migration begins from mid-August to late September. Route is broad, extending throughout the eastern United States, east of the Rocky Mountains. Birds move across the central Gulf of Mexico (Rappole et al. 1979) through eastern Mexico and Belize and arrive in Costa Rica by mid-September (Stiles and Skutch 1989). In spring, moves north via the western Gulf of Mexico or along the western Gulf Coast from Central America, beginning to arrive on its northern breeding grounds in mid-May (Rappole et al. 1979).

### **Palustrine Habitat(s): RIPARIAN**

**Terrestrial Habitat(s):** FOREST - HARDWOOD, OLD FIELD, SHRUBLAND/CHAPARRAL, WOODLAND – HARDWOOD.

**Habitat Comments: BREEDING:** In new, second-growth thickets of alder (ALNUS spp.) and other deciduous bushes growing in scrubby clearings and brushy areas or along the margins of streams, in orchards, pasturelands, forest edges, cut-over forests, roadsides, in open deciduous woodlands and in power line corridors (AOU 1983, Askins 2000, Dunn and Garrett 1997, Richardson and Brauning 1995). Becomes most common in deciduous second growth or large forest clearings (Richardson and Brauning 1995). Avoids deep woods.

Makes extensive use of scrubby patches, particularly those with RUBUS spp. present (Richardson and Brauning 1995). At high elevations, mountain laurel thickets are used (Dunn and Garrett 1997). Both wet and dry habitats used. Usually avoids conifer-dominated habitats and mature deciduous forests; however, populations from Manitoba west to Alberta occur in mature deciduous woodland with an under story of dogwoods and cranberries. Rarely found in urban settings and in areas of intensive agricultural use; has decreased where such development has replace fragmented or brushy habitats (Garret and Dunn 1997, see Robbins 1990, Burleigh 1958).

In the boreal forest of central Saskatchewan, found almost exclusively in stands of pure aspen (Hobson and Bayne 2000). In north-central Minnesota, found in habitat described as open fields with shrubs (Collins et al. 1982) or open habitat (Collins 1981). In the Appalachian Mountains, inhabits high-altitude stunted oak (QUERCUS) forests (Burleigh 1958). In portions of Appalachian region, found in thickets of young chestnuts, which die before reaching maturity (Richardson and Brauning 1995).

**NON-BREEDING:** Disturbed areas and clearings within tropical forests, forest borders, second growth and even shaded gardens and coffee plantations (AOU 1988, Dunn and Garrett 1997, Pashley 1989). Also in moist sub-montane forest, to an elevation of 1300m (Curson et al. 1994).

In the Canal Zone of Panama, found in equal densities in old and young forest (Greenberg 1984), but prefers mature and late-second growth. Found in mesic and wet sites during wet and dry season, leaving the scrubby areas in the dry season (Morton 1980). Found in mid- to upper canopy of dense, moist forest, but not in the outer canopy of old forests that have a broader, branching structure (Greenberg 1984). In Costa Rica, also inhabits coffee plantations and riparian vegetation (Stiles and Skutch 1989). In Mexico, occupies, humid to semi-humid evergreen forest and edge, plantations, at mid- to upper levels (Howell and Webb 1995).

**MIGRATION:** Migrating birds can be found in a variety of shrubby habitats and in open woodlands, occasionally deep forests (Obserholser 1974, Bohlen 1989, Richardson and Brauning 1995).

**Food Habits:** INVERTIVORE

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