

Lake Forest, Illinois. This 122-acre preserve is embedded in an intensively developed suburban landscape, and contains habitats ranging from restored tallgrass prairie and savannah to deciduous woodland. All bird-netting is conducted in an area of swampy riparian forest. This area contains a broken canopy of oaks, cottonwoods, box elder and black cherry with a dense understory comprised largely



A Mourning Warbler and Connecticut Warbler were captured and banded at SWAMP in Lake Forest, Illinois, 21 May 2005.

of exotic buckthorn and honeysuckle. Twelve, 2m-wide net lanes are cleared of brush each April, and then 12m, 33 mm mesh, nylon mist nets are opened in them every day in May (weather permitting) from just before sunrise (5 a.m.) until 10 a.m. Nets are checked and birds are removed every hour or half hour while the nets are open. After removal from the nets, birds are placed in breathable bags, labeled with the time and net of capture, and transported back to a central banding location in the field for data collection. A small, individually numbered aluminum leg band, issued by the U.S. Federal Bird Banding Laboratory, is placed on the leg of captured birds (with the exception of Ruby-throated Hummingbirds). Mass is measured using 100 g spring scales; wing chord is measured to the nearest mm with a wing-rule. Birds are rated on qualitative scales for the following physiological attributes: Body molt, feather molt, feather wear, subcutaneous fat deposits, and parasite load (Gordon et al. 2002). Whenever possible, age and sex of birds are determined visually (plumage, molt limits) or by measurements, with the aid of Sibley (2000), and Pyle (1997). Birds are released on-site when data collection is completed.

In addition to the twelve understory nets, four canopy nets were also run for the second half of May in 2005. The canopy nets were held open by a PVC pipe frame, and suspended by ropes at heights ranging between 12 and 15 meters above the ground in areas where there were breaks in the canopy. The nets were opened on selected mornings in the second half of May, and raised to their maximum height via a rope system. The nets

were visually checked each hour while open. If a bird was captured, the net was carefully lowered, the bird removed, and the net raised again to maximum height. Birds were then transported back to the central banding location for data collection.

For the purpose of analysis, all captured bird species were classified into one of three vertical microhabitat categories: Understory, mid-level, and canopy. This classification was

based on information from The Birds of North America species accounts as well as general observations of bird foraging height.

## Results and Discussion

SWAMP has experienced a high-capture rate compared with other North American banding stations (Gordon et al 2002), though the extraordinarily high capture rates of 2002 have not been achieved in subsequent years (Table 1). SWAMP has captured a wide diversity of birds

**Table 1:** The number of new captures for each species per year at the SWAMP banding station, along with vertical stratum (U – understory, M – midcanopy and C – Canopy) and the status of the species population in North America for the time period from 1966 to 2004 as defined by the North American Breeding Bird Survey (Sauer et al. 2005) (- decline, + increase, and n/a for not available), and the State of the Birds report (National Audubon Society 2004) (Y for species of high concern, and R for species of highest concern).

Species	Vertical Stratum	Status	2002	2003	2004	2005	Total
American Woodcock	U	+	1	0	1	2	4
Mourning Dove	U	-	0	0	1	1	2
Whip-poor-will	U	-	0	0	0	1	1
Ruby-throated Hummingbird	U	+	0	9	14	20	43
Red-bellied Woodpecker	M	+	0	1	0	2	7
Downy Woodpecker	M	0	1	0	1	0	3
Hairy Woodpecker	M	+	3	2	1	1	4
Yellow-shafted Flicker	U	-	2	0	1	3	6
Olive-sided Flycatcher	C	-(Y)	0	0	0	1	1
Eastern Wood Pewee	C	-	1	0	2	1	4
Yellow-bellied Flycatcher	M	+	11	12	12	12	47
Acadian Flycatcher	M	-	1	0	0	0	1
(Traill's Flycatcher)	U	-	12	17	6	10	45
Alder Flycatcher	U	-	2	7	8	5	22
Willow Flycatcher	U	-(Y)	3	0	0	0	3
Least Flycatcher	M	-	1	2	2	5	10
Great Crested Flycatcher	C	0	0	1	0	0	1
Blue-headed Vireo	C	+	1	0	0	1	2
Yellow-throated Vireo	C	+	0	3	0	0	3
Red-eyed Vireo	C	+	2	1	5	7	15
Blue Jay	M	-	5	5	3	1	14
Black-capped Chickadee	C	+	8	2	4	4	18
White-breasted Nuthatch	M	+	0	0	1	4	5
House Wren	U	+	0	1	1	2	4