



VERMONT LOON CONSERVATION PROJECT

YEAR IN REVIEW

With a legion of volunteers and partners, the Vermont Loon Conservation Project has monitored and managed the state's Common Loon population for over four decades. Our work brought loons from the brink of extirpation in 1983 (only seven nesting pairs statewide) to the thriving, secure population documented in 2018. While 2017 racked up record numbers of nests and chicks, 2018 saw a record number of adult loons counted on our annual LoonWatch day—356 (up from 308 in 2017)!

91

OUT OF 123 TERRITORIAL PAIRS NESTED*

*25 NESTED ON RAFTS, 30 ON ISLANDS 27 IN MARSHES & 9 ON SHORELINES

66

PAIRS HATCHED

97

EGGS

73

CHICKS SURVIVED THROUGH AUGUST

4

NEW NESTING PAIRS WERE IDENTIFIED*

* LAKE LAKOTA, MITCHELL LAKE, OLD MARSH POND & LAKE PARKER

200

VOLUNTEERS TOOK PART IN LOONWATCH DAY

THE ANNUAL STATEWIDE LOON COUNT

13

LOON CONSERVATION PRESENTATIONS WERE DELIVERED TO OVER 350 PEOPLE STATEWIDE

PREDICTING PRIME HABITAT FOR BICKNELL'S THRUSH

Bicknell's Thrush breeds only in high-elevation balsam fir-dominated forests of the northeastern U.S. and southeastern Canada, where it is estimated to number fewer than 100,000 individuals. Compounding chronic threats to its summer breeding habitats, the plight of this species' Caribbean wintering grounds is even more dire.

An estimated 90% of the global population of Bicknell's Thrush overwinters on Hispaniola, the shared island of Haiti and the Dominican Republic, where destruction of forested habitats is severe and ongoing. Recognizing that swift and strategic action was needed to save this species' dwindling habitat, VCE biologist Kent McFarland and colleagues took action. Combining statistical modeling methods

with field surveys and occurrence data, they identified remaining key habitat for female thrushes (females tend to inhabit mid-elevation forests that are more vulnerable to human disturbance than the higher-elevation, more remote, relatively pristine cloud forests used by males). Then, applying criteria from their model to a region-wide assessment of private properties, they identified and helped to purchase the Dominican Republic's first-ever private reserve, the 400-ha Reserva Privada Zorzal. Seventy percent of the land in this reserve is designated as forest and "forever wild," while the remainder will support compatible crops such as organic cacao (chocolate). Their study was published in *The Condor: Ornithological Applications*. VCE hopes to apply these methods to help prioritize additional lands for conservation of Bicknell's Thrush on Hispaniola and elsewhere.

◀ The mountains of the Dominican Republic are hotspots of biodiversity.



◀ Upland Sandpiper sporting her solar-powered satellite geolocator.

GO KONZA, GO!

In 2018, VCE's Rosalind Renfrew and Jason Hill invited the public to join them, via blogs and social media, as they live-tracked a free-living Upland Sandpiper over a full year. Affectionately known as "Konza" in honor of the Konza Prairie in Kansas, where she was fitted for her solar-powered geolocator, this sandpiper gained a devout social media following as hundreds of readers eagerly awaited VCE's updates on her whereabouts.

The Upland Sandpiper is a long-distance migratory shorebird that breeds in northern North American grasslands

and travels 6,000 miles to southern South America each winter. Logging this particular bird's movements not only refined our understanding and appreciation of the species' extraordinary migration, but shed crucial light on habitat conservation considerations along its entire migration route. Watching Konza's progress unfold in real time underscored that management of migratory birds must be coordinated at continental, and even hemispheric, scales. Learn more at vtecostudies.org/blog/live-updates-tracking-upland-sandpiper-trans-hemispheric-migration.

Vermont Forest Bird Monitoring—Three Decades of Data

VCE's Vermont Forest Bird Monitoring Program (FBMP) is one of the continent's longest-running studies of forest bird population trends. With the help of citizen science volunteers skilled in bird identification, the FBMP has systematically monitored songbirds in unmanaged, interior forests since 1989, amassing 30 years of population data. Why? Because most of these species are insectivores that play a crucial role in sustaining the ecological balance and productivity of forest ecosystems by consuming leaf-eating insects. Moreover, birds are sensitive indicators of environmental change, and a decline in bird abundance could signal trouble for the overall productivity and health of our forests.

So, what have we found in 30 years? Although by most accounts Vermont forests are healthy and robust, overall bird abundance on our study sites has declined slightly. And, while some species have responded favorably to our maturing forests, others have not. The most troubling sign is a significant decline in aerial insectivores—birds such as flycatchers that specialize in feeding on flying insects captured on the wing. This finding corroborates a widespread trend that ornithologists have documented within this group of birds, suggesting that broad-scale changes in insect populations may be the driving force, rather than effects of habitat loss or disease. Only by continued monitoring will we know if this trend persists or levels off as VCE and other researchers investigate the causal factors. vtecostudies.org/projects/forests/vermont-forest-bird-monitoring-program



Black-backed Woodpecker

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