

algae disintegrate, these "floating rocks" and shells remain scattered along the winter tidelines. By this means, objects denser than water are raised from the sea bottom and transported to elevations well above mean high water mark. This might explain how 892-92800 came to encounter the hook, although it was then a bizarre mischance that the hook somehow became threaded through its band.

LITERATURE CITED

- Martinez, A.J. and R. A. Harlow. 1994. Marine life of the North Atlantic: Canada to New England. Marine Life, Wenham, MA.
- Nisbet, I. C. T. 1991. Problems with Darvic color-bands on Common Terns: Band losses and foot injuries. *N. Amer Bird Bander* 16:61-63.
- Nisbet, I. C. T. 2002. Common Tern *Sterna hirundo*. No. 618 in *The birds of North America* (A. Poole and F. Gill, Eds.). The Birds of North America, Inc. Philadelphia, PA.
- Nisbet, I. C. T. and E. Cam. 2002. Test for age-specificity in survival of the Common Tern. *J. Appl. Stat.* 29:65-84.
- Nisbet, I. C. T., V. Apanius, and M. S. Friar. 2002. Breeding performance of very old Common Terns. *J. Field Ornithol.* 73:117-124.
- Nisbet, I. C. T., J. M. Winchell, and A. E. Heise. 1984. Influence of age on the breeding biology of Common Terns. *Colonial Waterbirds* 7:117-126.
- Tims, J., I. C. T. Nisbet, M. S. Friar, C. Mostello, and J. J. Hatch. 2004. Comparison of characteristics and performance of Common Terns (*Sterna hirundo*) at old and newly established breeding colonies. *Waterbirds* 27:321-332.

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An Extraordinary 2004 Outbreak of Conjunctivitis in an Adirondack Purple Finch Breeding Population

In an earlier note (Yunick, R.P. 2002. Disappearance of conjunctivitis symptoms in a Purple Finch. *N. Am. Bird Bander* 27:125-126), I reported on the occurrence of conjunctivitis in a Purple Finch (*Carpodacus purpureus*) breeding population 1999-2002, and on an infected individual in 2001 which returned a year later symptom free. Here I report on an extraordinary outbreak of the disease symptoms in 2004, affecting 19.5% of the Purple Finches handled in July, and the disappearance thereof later in 2004 or in 2005 in 27.3% of the 2004 infected individuals. I include also observations of apparent recovery in an infected Evening Grosbeak (*Coccothraustes vespertinus*)

Banding occurred at a year-round feeding operation in Adirondack mountain habitat at Jenny Lake, near Corinth, Saratoga County, NY. The first conjunctivitis symptoms of 2004 were noted on 7 May in an after-second-year (ASY) male, known to be three yrs old based on prior banding history. The bird had slight swelling in the right eyelids, and 26 days later when recaptured on 31 May was asymptomatic. Then, two ASY return birds presented symptoms on 20 and 25 Jun. One, a female, had a completely swollen shut right eye; the other, a male, had slight swelling on the right eye and severe swelling on the left eye, and was emaciated to the extent it weighed only 16.7 g compared to a more normal 22-25 g for this species. The male may not have survived, but the female was recaptured 21 days later on 11 Jul with only slight swelling of the eyelids, and the orbital feathers missing—an improved, recovering aspect of the disease.

In July, evidence of the disease was observed at an unprecedented level as 17 infected birds were captured during 2-19 Jul. On the night of 15 Jul, a bear appeared and began raiding my feeders, causing me to feed thereafter only intermittently at first, then not at all in the hope that the bear would move on. None of this worked until on 20 Aug I installed electric fences around each of my three pipe-supported feeders and resumed feeding. But by then, I had missed the peak of the season for

Summary of 2004 Infected Birds							
Number Infected	Year Originally Banded	Age/Sex Class*	Number Infected	Age/Sex Class*	Percentage	Age Class*	Percentage
3	2002	HY-U	9	HY-U	40.9	HY	40.9
5	2003	SY-F	2	Ad F	22.7	SY	13.6
14	2004	SY-M	1	Ad M	36.4	ASY	45.5
		ASY-F	3				
		ASY-M	7				
22	TOTAL	TOTAL	22	TOTAL	100.0	TOTAL	100.0

* Age/Sex Codes: Ad = adult (combined SY and ASY), ASY = after-second-year, F = female, HY = hatching-year, M = male, SY = second-year, U = unknown.

banding newly fledged finches from mid-July to mid-August; and even once I resumed feeding on 20 Aug, finches as well as other birds were slow to return. I encountered two more infected finches, one each in August and September.

The number of Purple Finch individuals captured in July totaled 87, consisting of 46 new bandings, 10 returns of previous years' bandings, and 31 repeat captures of birds previously captured in 2004 prior to July. The 17 infected individuals among them represented 19.5% of the month's total.

Two fatalities of infected finches were noted. An ASY-F captured on 2 Jul was so severely infected that both eyes were nearly completely swollen shut. On release, the bird fluttered feebly and expired in 1-2 hrs. This bird was emaciated severely, weighing only 16.3 g. It had been banded originally on 14 Apr 2003, was recaptured several times that year as a breeding female, returned on 3 May 2004 and as late as 19 Jun was symptom free until final capture on 2 Jul. The other fatality was a HY-U banded without symptoms on 10 Jul, then found dead at a feeder about 0.4 mi (0.65 km) away, where it had been seen flying feebly, unable to navigate. Its eyes were swollen shut; it was emaciated and weighed only 17.7 g.

Lessening or complete disappearance of symptoms (one and five birds, respectively) was noted from among the 22 infected 2004 birds, representing 27.3% of that total. Three of those recaptures occurred within 2004 with an ASY-M (May capture when infected) found symptom free on next capture 26 days later, an ASY-F (July) improved within 21 days and a HY-U (July)

symptom free 77 days later. The others, all observed originally with symptoms in July (one ASY-M and two HY-U) were asymptomatic as return birds when caught in May, June and October 2005. One of the infected HY's returned as a SY-F, the other an AHY-M.

The following summary adds the years 2003-2005 to the 1999-2002 summary presented previously (Yunick 2002):

Year	Banded	Returned	Total	Occurrence %
1999	158	53	211	0.47
2000	137	67	204	0.00
2001	82	29	111	1.80
2002	138	44	182	0.55
2003	211	62	273	0.73
2004	161	65	226	9.73
2005	220	40	260	0.38

Among the Evening Grosbeaks that bred at this location, an ASY-F banded free of symptoms on 25 Jun 2004 was recaptured 2 Jul with both eyes weeping with mild swelling in the right eye, worse swelling in the left eye. When recaptured on 19 Jul, the orbital ring feathering around both eyes was missing, exposing bare skin measuring 2 mm wide; and the swelling in both eyes was slight, an improvement from its condition on 2 Jul. It represented one of 71 (1.4%) grosbeaks handled (68 banded, three returns) that summer.

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