

AN ATTEMPT TO UNRAVEL THE MYSTERY OF WINTER FINCH OCCURRENCE

by Richard A. Forster

Since the inception of local ornithological investigation in New England, most authors have termed the movement of winter finches erratic, unpredictable, or have used some other word that emphasizes the nomadic comings and goings of these species. In order to understand the seemingly ambiguous behavior of these birds, we must look at local migrant and resident passerine species to better understand the reasons for seasonal movements.

Most of our resident landbird species are food generalists; that is, they utilize different food resources at different times of the year. During the summer they feed on insects and insect larvae to a great extent, and at other seasons they feed on a variety of foods, including seeds, egg cases, spiders, and beetles, as well as freely coming to feeding stations. Migrant species that spend the breeding season in our temperate climate also utilize insects and larvae to a great extent during the nesting season, but when this abundance, usually of short duration, becomes somewhat depleted, they resort to other sources. Thus, many flycatchers that rely almost solely on insects do not arrive until early June and begin departing in mid-August. Likewise, vireos, warblers, tanagers and to some extent thrushes are here only slightly longer, from mid-May to mid-September. Many of these must migrate to tropical or subtropical regions where insect and fruit supplies are abundant during the winter months. Migrant seedeaters, such as sparrows and their allies, remain here longest, approximately from April to October, and winter in the middle or southern states, where a lack of permanent snow cover affords them relatively easy access to the seeds required for winter survival.

Although there are many variations of this general pattern, there is no group that demonstrates as radical a departure from the norm as the so-called northern finches—Evening and Pine grosbeaks, crossbills, redpolls, and siskins. Many of these feed insects to their young during the brief breeding season but during the remainder of the year rely heavily on the seeds and buds of flowering trees. All of the species discussed here have generally defined breeding ranges, but the ranges of no two species are identical or even essentially the same. All have different bill shapes and feeding strategies that allow them to utilize different tree species as a food source; moreover, this does not preclude that a given species or two or even more would utilize the same locally abundant food source. Furthermore, unlike insects, which are predictably abundant to a greater or lesser extent each summer, or herbaceous plants, which can provide a regular and dependable food supply from year to year, tree seeds are a varying and unpredictable food source, depending on the weather and the natural rhythm of

the tree's life cycle. Most tree species require more than one year to produce fruit, and more northerly trees usually crop at longer intervals. A good crop depends on suitable weather in autumn when fruits are formed and again in spring when flowers set. In a given area most trees of a species crop in phase, but widely separated geographical areas most likely have different cropping regimens. Therefore, productive patches can be plentiful and widespread, or few and far between. Many individuals of a given finch species may migrate each season but breed and winter in different areas in successive years. Also, since the finches feed on tree seeds, they are generally unaffected by snow cover on the ground. Likewise, the supposition that finches undertake migrations in hard weather was refuted in December of 1989, the coldest December on record locally, when virtually no finches were found in Massachusetts.

Because tree seed crops are an undependable food supply, the result is that finches demonstrate no winter site fidelity. By contrast, a Black-throated Blue Warbler that nests in Massachusetts might return to spend the winter in the same woodlot in Jamaica or a Chestnut-sided Warbler in the same tract of jungle in Panama. But the likelihood of a given finch returning to the same site in successive winters is remote at best. The best example of this was a fourteen-year banding study of Evening Grosbeaks conducted during winter in Pennsylvania. During this period over 17,000 Evening Grosbeaks were banded, but only 48 were recovered in subsequent winters. However, 451 birds banded at the station were recovered in subsequent years scattered throughout seventeen states and four Canadian provinces. Likewise, 348 Evening Grosbeaks banded elsewhere and recovered at the station represented bandings from fourteen states and four provinces. Apparently even the dependability of a well-stocked feeding station has little effect on the random movement of finches, at least in this case of Evening Grosbeaks.

Given the fact that finches do migrate to a greater or lesser extent, a few comments about their migrations may be helpful to the reader. For the most part finches are diurnal, or daytime, migrants. When they are migrating, they commence moving at dawn or even slightly before. The flight then continues for several hours but is usually completed by late morning at which time they put down to feed. They generally spend the better part of the day feeding and resting, and a less extensive movement may begin in late afternoon. The distance traveled is relatively short, on the order of 60 to 120 miles per day. When such migrations are in evidence, they tend to occur in waves, or pulses, lasting several days. The greatest numbers of migrants tend to occur on the second or third day of such pulses. When a given species is undertaking a migration, the migratory restlessness may attract a few individuals of another species. This is particularly true of crossbills and helps explain why on the rare

occasion when one species is abundant a few of the other crossbill species may be found.

With this general background and bearing in mind that no given statement is definitive, let us look at the pattern of occurrence of individual finch species.

Evening Grosbeak (*Coccothraustes vespertinus*).

In the mid-1800s the range of Evening Grosbeak in eastern North America was confined to the upper Great Lakes, although the species was more widespread in Canada. In 1854 it was first recorded in Toronto, and beginning in 1875 there was a general eastward movement. During the winter of 1886-87 there was a flight that penetrated into the Midwest, and in the winter of 1889-90 there was a major incursion eastward, which reached coastal Massachusetts. There was another major flight during the winter of 1910-11, and the species has been recorded annually in the state since then. The range has gradually extended eastward and become consolidated. Many authors have suggested that the extensive planting of ashleaf maple (*Acer negundo*), a favored food, created an avenue of expansion eastward. By the early 1950s Evening Grosbeaks were breeding in Nova Scotia and northern Maine and by the 1960s bred south to central northern New England. The spread of the breeding range may have been due to a major and prolonged outbreak of spruce budworm. Spruce budworm is a major food for nestlings and young, and undoubtedly the outbreak resulted in greater survival of young and a larger and expanding population.

Until the past few years Evening Grosbeak was the most regular and reliable of the winter finches to occur in the state. The vanguard of the fall flight may occur in late September but more normally in early October. Large flocks may begin appearing in late October, but sometimes the flight occurs as late as the latter part of December or even January. Sizable wandering flocks typically appear at feeding stations, but their stay is brief. People who maintain bird feeders may be delighted at first with the new guests but soon discover that they are unwilling or incapable of providing for these voracious flocks because of the amount of seed they consume and the economic liability they represent. Flocks readily feed on the buds and seeds of maple, ash, and conifers. As spring approaches, these grosbeaks can be found taking maple sap and feeding among the leaf litter in search of seeds covered by the winter's snow. Evening Grosbeaks are better represented in the central and western portions of the state than in eastern sections, probably due to a greater abundance of natural foods in these regions. Since the winter of 1987-88 Evening Grosbeaks have been relatively scarce statewide. This may be due to a decline in spruce budworm populations with a resulting general decline in the population of grosbeaks.

In years of plenty there is a northward exodus from the state with the greatest movement in the latter part of April and early May. By mid-May most have departed the state, but in the past decade there have been May reports of

juveniles accompanied by adults attending feeders in the western part of the state.

Pine Grosbeak (*Pinicola enucleator*).

The comings and goings of this finch are perhaps the most unpredictable of those considered in this discussion. Pine Grosbeaks tend to occur less frequently and in fewer numbers than the others. When present, they are usually rare to uncommon. They rarely appear before November, and numbers usually increase in December and sometimes in January. The rare occasions when they are abundant usually coincide with a bumper crop of white ash (*Fraxinus americana*) seeds. This was particularly true in 1892 and 1978, but the reasons for the abundance in 1972 are less obvious. A flock of Pine Grosbeaks can exhaust an abundant supply of ash seeds in only a day or two; hence, they constantly move in search of a new food source. When Pine Grosbeaks are present under normal circumstances, their preferred food is spruce buds, the berries of mountain ash (*Pyrus spp.*), and ornamental crabapples (*Malus spp.*). In years when they are generally absent statewide, they can occasionally be found in the extensive coniferous forests in northern Berkshire County. The northward exodus begins in mid-February, and they are rare after mid-March.

Pine Siskin (*Carduelis pinus*).

Godfrey (1966) said that this species is "notable for its erratic comings and goings and unpredictable nesting times, common one year, absent the next." Forbush (1929) stated that the siskin was almost as erratic as the crossbills. Its winter wanderings, especially in the east, are so irregular and so variable that it is difficult to define its usual range.

In general, the Pine Siskin is a regular fall migrant and an irregular winter visitor. Migrants appear in late September or early October with a peak usually in late October or November, at which time massive flights may occur. Following these movements they may be totally lacking in winter or generally widespread. Siskins wander continually in fall and winter but do settle for extended periods where food is plentiful. The preferred foods are the seeds of birch and alder catkins, conifer seeds, and weed seeds. They will often feed in mixed company with redpolls or goldfinches. The recent trend of providing niger, or "thistle," seed or sunflower kernels at feeders has on occasion attracted large numbers of siskins that remain well into April and even May. How many of these remain to breed is difficult to determine. Nest building has been noted in March, incubating birds in April, and fledglings in early May. Apparently once these fledglings are ready to go, the siskins continue their nomadic wanderings.

Some authors have commented on a return migration in May, presumably in years when the fall flight passes through the state and when the birds are

generally lacking in winter. However, this return movement has not been evident to any extent in the past two decades. The following banding reports are indicative of their wanderings. A juvenile banded in Winnipeg, Manitoba, on June 2, 1963, was recovered in Westchester County, New York, on April 22, 1964, and one banded at Binghamton, New York, on April 11, 1963, was found dead three months later north of Kamsack, Saskatchewan.

Common Redpoll (*Carduelis flammea*).

In many respects the redpoll is the most "regular" of the irregular winter finches, being uncommon or common every two or three years. Redpolls are rare before mid-November and often do not become common before late January and sometimes as late as early March. When present, most depart in early April, but in some years when attracted to feeding stations (e.g., 1978), they remain in numbers to late April. The winter diet consists of birch and alder seeds and the weed seeds found in fields and roadsides.

Although Common Redpolls can be found in varying numbers when present, there are some years when they have occurred in great abundance (1952-53, 1973-74, and 1977-78). Some years they are attracted in numbers to well-stocked "thistle" feeders, and in other years they may be found feeding only on natural seeds. In years of great incursion there are usually a few well-marked individuals of Hoary Redpoll (*Carduelis hornemanni*). However, the taxonomic validity of the latter species is the focus of much discussion and study.

White-winged Crossbill (*Loxia leucoptera*).

The last two species, White-winged and Red crossbills, are morphologically distinct from the other finches and from other landbirds. The peculiar crossed bills are a very specialized adaptation for prying apart cone scales, and the large tongue is modified to extract the exposed seed. Even the feet are modified, large and strong for holding the cone while the seed is extracted. Of the two species, White-winged Crossbills come closest to exhibiting typical finch behavior. The Red Crossbill may be the most opportunistic landbird species of all. Populations roam within a rather broad breeding range, settling in where a particular food is abundant, regardless of the season of the year. Red Crossbill is the only landbird to breed in its juvenile plumage, apparently only a month or two after hatching! This is the ultimate adaptation to an abundant food supply—an expression of a behavior pattern that has become a way of life. Keeping in mind the traits of these erratic avian eccentrics, we shall try to make some sense of their movements.

The White-winged Crossbill is best considered a rare, but occasionally common, and irregular winter visitor. Since it generally nests farther north than the Red Crossbill, it occurs less frequently. However, flights sometimes

outnumber flights of Reds. Although a few individuals may appear in late September or October, White-wings do not normally put in an appearance until midwinter. These appearances tend to correlate with an abundance of hemlock (*Tsuga canadensis*) cones, and at such times these birds are commoner in the central and western portions of Massachusetts. In years when they are present, they are seldom seen after March. In August 1969 a large flock of White-winged Crossbills appeared at Brewster on Cape Cod, and again in August 1989 several small flocks were recorded in Berkshire County.

In several recent years there has been a midsummer (beginning in late June) influx into northern Maine, especially in coastal areas. In his study of crossbills in northeastern United States and adjacent Canada, Benkman (1987) provides a very detailed account of this occurrence. Since the bill of the White-winged Crossbill is much smaller, this species predominantly feeds on smaller sized cones than do Red Crossbills. In addition to the aforementioned hemlock, other cones of preference include larch, or tamarack (*Larix laricina*), and white spruce (*Picea glauca*). In Maine the dominant food source is white spruce. The cones of white spruce differ from other spruce cones by having more flexible scales. They begin to drop seeds earlier, starting in midsummer and nearly finishing by the end of October. It is quite possible that the summer occurrences in Massachusetts were an offshoot of these aggregations, but it is obvious that the bulk of these birds dispersed either northward or westward in search of other species of spruce, whose cones were beginning to open by early November. Up to the present there is no evidence that White-winged Crossbills have moved southward en masse in October or November in search of a dependable food supply.

Red Crossbill (*Loxia curvirostra*).

The following comments have been made concerning Red Crossbill: "the most erratic and irregular of New York birds" (Bull 1974); "permanent resident in its range but highly nomadic; breeding range not well known, probably breeds within only sections of continuous range each year...nesting in a given area is no indication that it will breed next year, next decade, or even the previous year" (Godfrey 1966). Forbush stated that Red Crossbills "may pass one winter in forests of the frozen north, the next it may be found in the sunny south" and that they "move south more or less in winter." Obviously these comments are indicative of the unpredictable nature of this species.

In Massachusetts the Red Crossbill can be considered an irregular winter visitor that is most numerous in late fall and winter although it has been recorded in every month and has bred (March-June) on a handful of occasions. Unlike its White-winged cousin this species is more likely to be found along the coast feeding on pitch (*Pinus rigida*) and black pines (an introduced species). The larger, more powerful bill of the Red Crossbill enables it to utilize these

food sources. Hawkwatchers or other skywatchers familiar with their distinctive "jip, jip" call note often encounter them in singles or small groups from mid-April to early May, even if there was not a flight the previous winter.

Within the range of the Red Crossbill population, there are geographic variations, primarily in bill size and body size. The smallest-billed birds occur in the Pacific Northwest and have appeared on occasion in Massachusetts, most notably in 1941 when several were collected from flocks. In any given flight there may be representatives of two geographical populations. When this occurs, birds of similar size maintain discrete flocks. Although the variations are slight, the differences are sufficient and the call notes allegedly separable so that some investigators believe that more than one species is involved. The major stumbling block to further investigation is locating a breeding population to study.

Summary.

In sum, different factors affect the winter distribution of each of the six finch species discussed. Some species may be common one winter and others totally absent. Because the breeding ranges and food preferences of different winter finch species vary greatly and because the trees on whose seeds the finches depend for food also have diverse seed-producing strategies and cycles, it is extremely unusual to have a synchronous flight when all six species are common and nearly impossible, with so many variables, to predict such an uncommon event.

References

- Benkman, C. W. 1987. "Food Profitability and the Foraging Ecology of Crossbills," *Ecological Monographs* 57(3): 251-267.
- Bull, J. 1974. *Birds of New York State*. Garden City, NY: Doubleday Natural History Press.
- Forbush, E. H. 1929. *Birds of Massachusetts and other New England States*, vol. 3. Boston: Massachusetts State Board of Agriculture.
- Godfrey, W. E. 1966. *The Birds of Canada*. National Museum of Canada, Bulletin no. 203. Ottawa.

RICHARD A. FORSTER, well-known New England ornithologist and birder and a regular contributor to *Bird Observer*, addressed the subject of this article in a presentation at the Birders' Conference held at Massachusetts Audubon's Laughing Brook Sanctuary on November 18, 1989. This paper grew out of that presentation.

SIGHTINGS OF FRANKLIN'S GULLS (*Larus pipixcan*)

Editor's Note. At intervals *Bird Observer* publishes reports we have received of unusual bird sightings. Examples are B. Nikula and H. Stabins, Long-billed Curlew, June 6, 1984 [*Bird Observer* 12(5): 273]; W. G. Ellison, Bridled Tern, August 25, 1984 [12(6): 351]; S. Tingley, Ross' Gull, December 3, 1984 [13(2): 86]; and R. J. Richards, Fieldfare, April 6, 1986 [14(2): 78].

In the past we have printed photocopies of notes and drawings made on the spot or, as below, transcriptions of the more formal reports prepared from the observer's field jottings as soon as possible, usually within a few hours of the event. When published, such reports are minimally edited for spelling and punctuation and demonstrate the details it is essential to include. Sightings of vagrants or unusual birds are first communicated by phone or CB radio to spread the news quickly and have the observation confirmed. However, written details must be received by records people, even though the bird is verified by experts and seen by hundreds. A written report serves to credit the proper person with the original sighting and provides archival material that will be available to records committees and future researchers. Written data make it possible for our records compilers and other experts to evaluate unusual sightings before publication. This is the only way that *Bird Observer* can maintain the credibility of its published "Field Records" and insure that all unusual sightings, including questionable or unpublished ones, are archived. Dorothy R. Arvidson

Franklin's Gull

September 3, 1989, at Nahant, Massachusetts _____ Richard A. Forster

Plumage: first summer (1S)

Date: 3 September 1989; *time:* 7:20-7:50 A.M.

Location: Little Nahant Beach, Nahant, Massachusetts

Observers: R. A. Forster, K. Forster, M. Martinek

Bird was originally located at westerly ending of Little Nahant Beach at an estimated distance of one-third mile. This individual was in the company of about 15 Ring-billed Gulls and 4-5 Herring Gulls. Attention was called to this bird because of slaty back and black primary tips. Initial attention drawn by its obviously smaller size relative to Ring-bills. At this time further details noted were dumpy build, rounded head, short bill, dark bill, and legs. The comparison of this bird to Laughing Gull as Iceland to Herring Gull (head and bill shape). Also lacked attenuated (long-winged) appearance of Laughing Gull. The head was partially hooded with forehead and region just above and anterior of eye mainly whitish but rest of hood by no means entire, with small blotches of white. At one point a Bonaparte's Gull landed near it briefly, and the comparison of the two was possible. Bonaparte's slim build relative to dumpy

shape (fat) of this bird. Size near same. The other two observers joined me after ten minutes, and after they had brief views, we drove closer. We approached along beach pausing three times to view the bird as we drew near. Same field marks observed. No obvious white apical tips apparent on primaries, white area (trailing edge of secondaries) separated slate mantle from black primary tips. Size about 3 inches smaller than Ring-bill. Finally Kevin Forster and I abandoned scope and approached the bird using binocs. The Franklin's Gull was the only bird to fly (when we were about 200 feet away), and it took off at a right angle to us and low (only 10-15 feet above ground). White bar typical of adult Franklin's absent, indicating a first summer bird (1 year old). Obvious pale bar midwing (faded/worn coverts, or missing?) in flight [sketch omitted]. Similar to bird illustrated in Grant's *Gulls* (first ed.), p. 198, middle of left column.

Upon consulting National Geo. guide after the sighting, Kevin Forster said bird was adult winter (based on head insert present), but I said head same in almost all plumages and ages except breeding adult. Martinek comments to be appended [not yet received].

Bird flew to south side of causeway, and we didn't pursue.

Franklin's Gull

October 6, 1989, at Lynn, Massachusetts _____ John F. Quigley

Plumage: first winter (1W)

Date: October 6, 1989; *time:* 12:13-1:30 P.M.

Location: Flax Pond, Lynn, Massachusetts

Weather: partly cloudy, sun at my back

Observer: John F. Quigley

I observed a gull fly in with first and second winter Laughing Gulls to the middle of Flax Pond.

Long-range field marks: an immature gull (by its brownish wing coverts), distinct half-hood with obvious white eye ring. Whitish breast and neck sides highlighting half-hood and contrastingly different from Laughing Gulls. Broad whitish tertial fringes. It then flew in and landed on a point of rocks 24 yards from me with first and second winter Laughing Gulls.

Short-range field marks: all long-range field marks seen conclusively, with breast sides tinged gray, wing coverts gray brown with brown margins, whitish scapular fringe, blackish-brown primaries with very small tips, tail band blackish brown (narrower than Laughing Gull); with outer tail feathers white, bill blackish and smaller than Laughing Gull. Head and bill structure rounder than Laughing Gull (noticeable at long range), mantle clear dark gray, overall size and shape smaller than Laughing Gull.

Rhode Island Ornithological Club and Audubon Society of Rhode Island
invite you to attend

FIRST ANNUAL RHODE ISLAND BIRDERS' MEETING

featuring Christoph Imboden, Director,
International Council for Bird Preservation

Saturday, March 31 8:30 A.M. to 4:00 P.M.

Audubon Society of Rhode Island Headquarters
Powder Mill Ledges Wildlife Refuge, Routes U.S. 44 and RI 5
Smithfield/Greenville, RI

Join us for presentations about birds and birding in southern New England.
Please send \$15 registration fee (includes cost of luncheon) to James Osborn,
Audubon Society of Rhode Island, 12 Sanderson Road, Smithfield, RI, 02917.
For information, please phone 401-231-6444.

Lloyd Center for Environmental Studies Workshop: *BIRDS OF SPRING*

This workshop, presented by Wayne R. Petersen, field ornithologist at Massachusetts Audubon Society and a staff member of *Bird Observer*, is designed for both novice and experienced birders. Topics to be covered include migration, breeding strategy, and bird song. The lectures are on Tuesday, April 10 and 24, at 7:30-9:30 P.M. and will be given at Southeastern Massachusetts University in Dartmouth. The field trips are on Saturday, April 14 and April 28.

Fee: \$70 for members of the Lloyd Center; \$90 for nonmembers.

For further information and to register, call the Lloyd Center at 508-990-0505, or write P. O. Box 7037, South Dartmouth, MA 02748.

Buying a used VW?
Complete Pre-purchase
Evaluation
Golf - Jetta - Quantum
\$50.

GTShop
Inc.
(617) 923-0941

Formerly Coop Garage

We service Nissan, Honda,
Saab, Toyota, VW, Volvo

106 Pleasant Street
Watertown Square

BIRD WATCHER'S GENERAL STORE

"Cape Cod's Shop for Bird Lovers"



FEATURING: *The Amazing "AVIARIUM" Birdfeeder* that brings birds right into your own home. The feeder is made of mirrored plexi-glass that allows you to watch the birds for hours, but they cannot see you.

COME SEE IT IN ACTION!

Other Bird Lover Items Include:

- Bird Mugs
- Bird Pillows
- Bird Tiles
- Bird Silkscreens
- Bird Thermometers
- Bird Towels
- Bird Placemats
- Bird Sun Catchers
- Bird Mobiles
- Bird Slates
- Bird Clocks
- Bird Wallets
- Bird Prints
- Bird Notecards
- Bird Switchplates
- Bird Stamps
- Bird Coat Racks
- Bird T-Shirts
- Bird Photos
- Bird Carving Kits
- Bird Key Chains
- Bird Jewelry
- Bird Recordings
- Bird Calls
- Bird Door Knockers
- Bird Baths
- Bird Paintings
- Bird Houses
- Bird Giftwrap
- Bird Posters
- Bird Calendars
- Bird Books
- Bird Field Guides
- Bird Glasses
- Bird Bath Heaters
- Bird Fountains
- Bird Telephone
- Bird Floor Mats
- Bird Bookmarks
- Bird Pot Holders

Complete line of Binoculars, spotting scopes and tripods.

PLUS over 50 different types of bird feeders including Bluejay and Squirrel-proof feeders that work, **GUARANTEED**. Plus ten different types of Bird Seed.

GIFT CERTIFICATES & U.P.S. SHIPPING.

BIRD WATCHER'S GENERAL STORE

508-255-6974

36 Route 6A, Orleans (Across from former location)

OPEN YEAR ROUND

THE GAME BIRDWATCHERS ARE WATCHING.

Introducing the new interactive VCR/board game that's a competitive challenge for birders and a delightful introduction for non-birders.

It's both a fascinating and endlessly entertaining game, as well as a superb method of learning field identification from the comfort of your armchair.

You'll observe and learn to identify over 350 species in their natural habitats, as actress-birder Jane Alexander, comedian-birder Bill Oddie and naturalist-author Peter Alden take you on the ultimate avian adventure through 100 birding hotspots of North America.

Beautifully produced with over two hours of magnificent video action by top wildlife cinematographers, *Gone Birding!* is a game you'll cherish. Features a Big Day competition with exciting prizes including a nature safari to Africa.

For 1-6 players of all ages.



Here's what the critics are saying...

"...a serious effort that could revolutionize the teaching of bird identification. Look out ornithology class, we're moving into the 21st century."

BIRDER'S WORLD

"This is the most effective and enjoyable way ever devised for novice and mid-level birders to become expert at field identification."

BIRD WATCHER'S DIGEST

"*Gone Birding!* is challenging, informative and very well-conceived."

PETER MATTHIESSEN, Author of
The Snow Leopard, Far Tortuga,
and *Wildlife in America*

"The *Gone Birding!* VCR game is...far more instructive than any field guide can be... The video's quality is most impressive. You definitely don't have to be a birder to enjoy this game! I'm expecting to enjoy *Gone Birding!* for years."

BIRD OBSERVER MAGAZINE



GONE BIRDING!

A video adventure in bird identification.™

Send check for \$79.95 plus \$4.00 shipping (\$8.00 CAN) to Rupicola VCR Games, Inc., 1300 Washington St., Suite 109D, Walpole MA 02081. Mass. residents add 5% sales tax (\$4.00). VHS or BETA. For information call 1-800-729-1809.