

MASSACHUSETTS RALLIDAE--A SUMMARY

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Various bird species occur in Massachusetts that, for one reason or another, are poorly known, even by active field ornithologists. The Long-tailed Jaeger, Barn Owl, Long-eared Owl, Whip-poor-will, and Sedge Wren (Short-billed Marsh Wren) illustrate this point. Perhaps no group of birds, however, is as thoroughly cloaked in mystery, or whose precise status is as poorly known, as that exhibited by the rails and their allies. In his recent monumental monograph, Rails of the World, S. Dillon Ripley claims that, "Rails are provocative because after centuries we know little more about them than did the earliest natural history observers." On a more personal level, Ripley states, "... the rail family fascinates me because by our very continuing ignorance of so many facets of the life of rails we can cherish and enjoy the prospect of many more mysteries remaining to be solved."

Regardless of one's particular interest in birdlife, species that are mysterious inevitably hold special appeal. It is with this thought in mind that this paper will review the existing information, in layman's terms, on local rails, while at the same time highlighting those areas where intensive local field work might actually yield a contribution to science's present knowledge of these birds.

Rails are classified in the Order Gruiformes, which, besides rails, includes cranes, songbirds, the Kagu, bustards, and their allies. Following Wetmore's (1960) taxonomy, rails are placed in the Suborder Grues, the Superfamily Ralloidea (Marsh Birds), and the Family Rallidae (Rails, Coots, and Gallinules). In Massachusetts there are nine recorded rail species, with two of these being only casual or very rare visitors. These species include the King Rail (Rallus elegans), Clapper Rail (R. longirostris), Virginia Rail (R. limicola), Sora (Porzana carolina), Yellow Rail (Coturnicops noveboracensis), Black Rail (Laterallus jamaicensis), Purple Gallinule (Porphyryula martinica), Common Gallinule (Gallinula chloropus), and American Coot (Fulica americana). In two of these species, the King Rail and Clapper Rail, there is serious taxonomic consideration given to "lumping" these two species as a single form, the "King Clapper Rail." However, I will treat them as separate species.

Our knowledge of local rails is in large part due to the work of an earlier generation of ornithologists, many of whom were also sportsmen. Through their exhaustive efforts in nest and egg collecting, and in hunting, much was determined about rail biology and local rail status. To quote the renowned Ludlow Griscom (1945), "The expert and energetic field students of the modern generation have learned most of the notes of most of the Rails and have a much better idea of the breeding species, especially the localities for the rarer

ones. In all other respects, however, they do not know these birds anywhere near as well as the older generation, and with most of the horde of present-day observers in this State it is a lucky fluke if they see or hear a Rail nine months out of twelve. It can be categorically stated that rushing around in a car making a large daily and year's list is not conducive to getting to know the Rails well." Only by spending long, often uncomfortable hours in appropriate marshy habitats can the patient observer hope to glean even an inkling of the habits and behavior of rails--something many modern observers are unwilling to do. How many observers, for instance, know the coloration of the Virginia Rail's eggs from first-hand experience?

One can get a fine flavor for the various rail species by careful scrutiny of such classic works as those of Forbush (1912, 1925), Bent (1926), and Griscom (1945, 1955), or by searching the more contemporary ornithological literature for specific accounts of facets of Rallidae biology. However, the most thorough treatment of rails as a group is the previously mentioned monograph by Ripley (1977). Throughout these accounts, the underlying theme is that there is a tremendous amount still to be learned about rails.

Probably no factors are as important in explaining the mystique of rails as their habitat preferences and their behavior within their chosen retreats. Primarily marsh birds, rails can be found in areas as diverse as large cattail marshes, brushy river meadows, extensive salt marshes, moist hay fields, overgrown cranberry bogs, and ponds with a border of vegetation. In fact, rails can be found almost anywhere there is water and cover, and during migration, even water is occasionally abandoned. Couple their habitat preference with skulking behavior and a reluctance to fly (other than during migration) and you have the makings of an ornithologist's nightmare! Additionally, rails have a wide variety of vocalizations, many of which are still not properly understood, either in terms of their significance or even their species specificity. As an example, what was long known as New England's "Ornithological Mystery" concerned certain rail vocalizations heard by numerous prominent ornithologists during the 1800s. William Brewster wrote of these sounds in his journals, and the peculiar notes that he and others often heard became known collectively as those of the "Kicker." (More on the "Kicker" later.) On top of all this, much rail activity, at least vocal activity, is crepuscular, occurring during the hours of dawn and dusk, and not infrequently at night.

Rail behavior exhibits a variety of peculiarities and contradictions. The running ability of rails is well-known, and even when walking, rails seldom show the hesitation and patterned, stop-start movement of shorebirds. Instead, they move rather deliberately, without the frequent pauses of sandpipers and plovers. It has been suggested that the

rails' predilection for densely vegetated habitats decreases their need for periodic stops for visual orientation, thus allowing more fluidity and directness in their travel--a trait shown even when they are in the open. In such open situations, stops in locomotion are principally for feeding, and when alarmed, escape is invariably by running, not by flight. Rails can also swim; however, only the American Coot and the gallinules do so routinely. The long, slender toes of rails are not infrequently employed in clambering about in bushes or similar rank vegetation. In any case, flight is the least frequently used means of escape.

The topic of flight touches upon one of the most curious aspects of rail biology. It is well known that rails are loathe to take flight unless pushed to the limit (as by a rail dog) or when they are suddenly surprised at very close range. Normally, their laterally compressed bodies (except in the coot and gallinules) allow them to move rapidly through dense vegetation, thereby escaping danger without resorting to flight. However, rails can fly perfectly well, and many species, including forms found outside our area, are notable vagrants whose extralimital wanderings have placed them on many an island's list of strays. The island of Bermuda, for example, has records of nine species of rails and gallinules, including the Corn Crake (Crex crex) of Europe.

Why rails should be such far-flung vagrants could actually be related to their sedentary nature when not involved in nocturnal migration. Ripley (1977) feels that possibly this sedentary characteristic fails to provide immature rails, the principal wanderers, with sufficient short-range reconnaissance flights to develop efficient powers of orientation essential to successful long-range migrational navigation. He further suggests that their hesitation in taking flight could be balanced by an equal uncertainty in alighting (!). In any case, all of the Massachusetts rails are migratory to some degree, with some strongly so (e.g., Sora and Yellow Rail).

Rail migration takes place almost exclusively at night and often results in mass arrivals and departures. Such flights are often most obvious in Soras and American Coots. Spring arrival for most species occurs in April, with both weather conditions and proper water levels being critical to the absolute timing. Fall departure is similarly dictated by weather--each succeeding September cold front seeing the passage and departure of local rails. While migration apparently continues through early November (even later for American Coots), the only Rallidae present by December are those that attempt to winter, often unsuccessfully in severe seasons. It is during these migration seasons that rails are seen at such unlikely locations as Mount Auburn Cemetery in Cambridge or as collision casualties at towers like Boston's Prudential Building.

Autumn is also the season for rail hunting. While seldom indulged in locally, a few gourmet specialists still pursue rails during the state's limited fall season. While Soras are the present-day favorite locally, all species were formerly gunned, thus contributing many of the rarer specimens present in museum collections today. In the South, the Clapper Rail was a favorite.

Hunting rails requires great energy, persistence, and ideally, a good rail dog. Best results are often obtained in September when flood tides cover our salt marshes and tidal rivers. At such times migrant rails are forced into the taller *Spartina* grass bordering creeks and ditches, where a good dog can readily point or jump the birds while the gunner awaits the brief, fluttery flight displayed by most species under such circumstances. Once jumped, rails frequently fly several hundred feet and then plop into the grass again. Getting them up a second time often requires considerable effort, so the sportsman must make his first shot count.

The author has spent many years in the field attempting to familiarize himself with rails at various seasons, and as a result, has developed the highest regard for older naturalists who routinely encountered many rails at all seasons through their specialized efforts. Seeing rails is a function of effort, while hearing them involves both time, and more recently, the technology of the tape recorder. The hunter's approach to working salt meadows on flood tides can be successfully applied by the field birder. If a good dog is not available, a 10-foot length of heavy chain equipped with rope handles can be used by two workers willing to rapidly drag the grass tops in appropriate areas (such as goldenrod-bordered ditches). While wet, laborious work, this technique can be very effective when properly executed.

A canoe can also be helpful in studying rails. Quiet paddling or drifting along muddy-edged marshy waterways and ponds, provided they also have heavy bordering vegetation, can sometimes produce close looks at rails and gallinules, so long as silence is maintained. Direct observation from land is also feasible at favored locations such as Parker River Refuge's Stage Island Pool, particularly since observation towers make viewing ideal. In all such situations, however, noise must be minimal, since this, more than anything, seems to disturb rails. The visual presence of a human often appears to be of little concern to a rail caught in the open. Wind, also, is a condition that rails seem to dislike. Their activity in the open, and especially their vocalizing, is severely reduced on windy days and nights.

Breeding

The breeding biology of rails is exceedingly difficult to study, at least until the stage when the young are hatched. Nests for most species are placed in dense marsh vegetation,

often cattails (*Hypha*), or *Spartina* for Clapper Rails, and are sometimes built over the water. Eggs number from 6-15 or more for most species and they are usually creamy or buffy in color, variously speckled with brown. The incubation period differs from species to species, but ranges from 16-20 or more days. Both sexes share in incubation. When hatched, the young are precocial, and in most species tend to resemble miniature, soot-colored barnyard chicks. Broods of half-grown young rails or gallinules are a frequent summer sight at such ideal localities as the Great Meadows Refuge in Concord or at the previously mentioned Parker River Refuge.

Vocalizations

The calls and notes of rails are perhaps among the more familiar, but also complex, aspects of rail biology. The varied vocabulary necessitated by species whose visual intraspecific contact is limited by a dense habitat makes the study of rail vocalizations one of the great bioacoustical challenges remaining in the Northeast. All species have territorial "songs" which are given with great persistence during the late spring and early summer, most often at dawn, dusk, or at night. However, the predictability of these songs is variable, with temperature, amount of light, and wind apparently affecting the intensity of calling. Additionally, rail density in a marsh can affect the frequency of calling--high density producing much "singing" and scarcity producing less of a demand for "advertising." For example, the infrequency with which the King Rail is heard in Massachusetts is no doubt a function of its low density, unlike in the Southeast where it is one of the more characteristic marsh sounds and it is abundant.

Besides the territorial "songs" and calls of the males, there are many other notes and sounds produced by rails under varying circumstances. Some are clearly intraspecific contact calls, while others exhibit alarm or are used about the nest or with fledged young. Even in the fall and winter, rails will occasionally call, but usually only when alarmed or startled. In all cases where calling rails are involved, identification is confounded by both interspecific similarity and by the difficulty in verifying the origin of a particular sound or call. More on the specific vocalizations of rails will follow in the species summaries.

The comments above are aimed at highlighting some of the general characteristics of the Rallidae and are not intended to be all-inclusive. Only by intensive effort can the details of the problems suggested above be unraveled. The balance of this account will describe something of the known status, distribution, and identification of the Rallidae of Massachusetts.

Species Accounts

King Rail: Of the breeding rails in Massachusetts, the King

Rail is one of the least known and one whose local status is the most poorly understood. As with most rails, its preferred breeding haunts include extensive cattail marshes, and less frequently, grassy river meadows. In such habitats, rank vegetation and the infrequency of its calling render it difficult to observe or record.

The migration schedule of the King Rail, which is based largely upon old gunning records, suggests that very likely the King Rail is the earliest of its tribe to arrive in spring. April would appear to be its principal month of arrival. As with many Rallidae, absence of calling birds probably does not in any way reflect an absence of King Rails. In fact, there are sufficient early to mid-April records to suggest that some may arrive several weeks before regular calling commences in May.

In recent years, the fall migration of King Rails has gone largely undetected. The scarcity of serious rail hunters is surely the explanation for this lack of field data. Earlier accounts suggest movement during September-November. An important point to be emphasized here was brought out by Griscom (1955) when he said that, "The King Rail occurs with great regularity on the coastal salt marshes in fall, and all earlier sight records of large rails there are rejected unless the observer was known to be familiar with both species." Of course Griscom was referring to confusion with the Clapper Rail. This admonition is still appropriate for all presently active observers. The author has personally jumped King Rails at Monomoy Point in the fall, as well as having seen several winter King Rails in salt marsh habitat. Wintering in Massachusetts is probably irregular, but a number of records over the years indicate that it is attempted with some frequency in appropriate open marshes, spring holes, or salt meadow ditches.

The reader is again reminded that the exact taxonomic status of the King Rail is open to question. A thorough reading of the works of the species' principal biographer, Brooke Meanley (1962, 1965), indicates its close affinity to the Clapper Rail. In fact, some authorities consider the two species conspecific. With this in mind, field observers are cautioned that "mixed pairs" of large rails may in fact have an even closer genetic linkage than as that of mere "bunk mates."

Field identification of King Rails is not difficult when satisfactory views are obtained in appropriate breeding habitat. The standard field guides properly illustrate the bird as a magnified Virginia Rail with rustier cheeks, bright rusty wing coverts, rich rusty on the breast, and sharply defined flank stripes. The back is generally a warm tan color, usually prominently striped. By comparison, Clapper Rails are grayer, particularly the wing coverts, and the sides of the upper breast are often suffused with gray, as

are the cheeks and face. When seen in flight, the King Rail looks like a gangly, rusty-colored chicken with rusty wing patches on the lead edge of the wing and a long bill and long legs. A comparable look at a Clapper Rail reveals an olive-gray-toned bird with similarly grayish wing patches and a dusker, less striped back pattern. As previously described, caution is advised unless the observer is very familiar with both species. Beware the salt marsh rail!

Since the various vocalizations of the King Rail are often the best clue to its presence in a marsh, a knowledge of the standard repertoire is important. As with many rails, a calling bird is frequently never seen, thus making absolute determination difficult. As in the Virginia Rail, a common call of the King Rail, and one recorded on the popular Roger Tory Peterson record, *A Field Guide to the Bird Songs*, is a harsh, grating, "jupe-jupe-jupe-jupe" or "chack-chack-chack-chack," given with great force and often including 20 or more notes. The end of this call generally lowers in pitch and increases in tempo. At close range, this is a startling sound. At a distance, the deeper tone (basso) is critical for separating it from the corresponding notes of the Virginia Rail.

Other notes of the King Rail include a deep, "ump-ump-ump," all on one key and given more slowly than notes of the Virginia Rail. Apparently, male King Rails have a "kek-kek-kek" note similar to the familiar call of the Clapper Rail. The author has only heard this call once in this state. A final call, allegedly used by the female, can be likened to the phrase "hip-hip-hip-hurraaa," given with downward inflection at the end and with considerable force. This call is occasionally heard in Massachusetts.

With all of these calls, the precise significance and their sexual specificity are uncertain. Readers desiring additional information are again referred to Meanley (1969).

While local records suggest that King Rails can appear anywhere in spring and summer where suitable habitat exists, some of the more recently favored areas are the Lynnfield marshes adjacent to Route 128, fresh water marshes on the Parker River Refuge, Wash Brook on the Wayland-Sudbury line, and at various meadows in southeastern Massachusetts, including Cape Cod.

Clapper Rail: The Clapper Rail, with the preceding species, is the other large rail of the Massachusetts marshes. Similar in basic form, its coloration differences have been previously described under the King Rail account. However, a marked breeding habitat difference exists between the two species--the Clapper Rail occurring exclusively in tidal salt marshes, the King Rail in freshwater marshes. Since both the Clapper Rail and the King Rail are near the extreme northern limits of their ranges, the extent of migration through Massachusetts is reduced considerably. In fact, both species

may actually be far commoner as breeding species than many workers would suppose, as evidenced by the extent of reports in fall and early winter, unless, of course, there is considerable northward dispersal from the south after nesting. Clapper Rails, especially, are apt to show up in tidal areas in fall and winter where their presence is unsuspected during the summer months. The origin of these birds is somewhat mysterious.

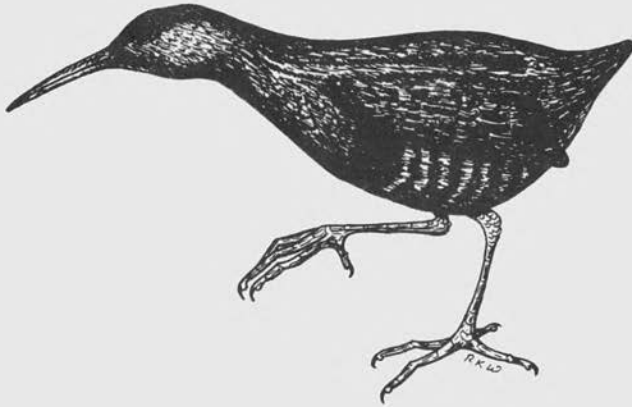
Presumptive breeding of the Clapper Rail occurs at Parker River Refuge, South Dartmouth, and at several extensive salt marshes on Cape Cod. Wintering is routinely attempted; however, mortality appears to be considerable by late winter. The migration patterns of the Clapper Rail are clouded by a lack of observations in the spring since the birds are little in evidence until calling commences in May, almost always at suspected breeding locations.

Vocalizations of the Clapper Rail are seemingly less diverse than in the King Rail; however, unlike that species, calling is frequent in summer and fall, long after King Rails have ceased calling in this region. The most characteristic notes of the Clapper Rail are loud, clattering, "chack-chack-chack" notes, often given in a measured sequence that can both increase and decrease in tempo. In all cases, the calls are often given for extended periods at dawn or dusk, and even at night. On only one occasion has the writer heard the pig-like, "chack-chack-chack" call from a Clapper Rail.

Virginia Rail: The Virginia Rail is the commonest breeding rail in Massachusetts, and with the Sora, is generally the most familiar to many observers. Its identification is adequately treated in the field guides and its nesting requirements are readily met in many wetlands throughout the state. With regard to its breeding requirements, the Virginia Rail seems to be more tolerant of brushy vegetation and less demanding of pure cattail stands than the Sora, and is consequently more common as a breeder in Massachusetts.

The arrival of migrants from the south takes place in April and breeding is generally underway by late May. Broods of young are occasionally encountered throughout the summer. Fall departure is in September and October; however, the species regularly attempts to winter where conditions permit along the coast or in spring-fed inland marshes.

The vocalizations of the Virginia Rail are varied and its notes can be heard more or less throughout the year, but with greatest frequency in spring and summer. The "song" of the male is the familiar, metallic, "kid-ik kid-ik kid-ik," often given for minutes at a time in a hesitating fashion. At a distance, the 2-syllable effect is often lost, thus rendering the sound a quality reminiscent of the Clapper Rail when similarly heard at some distance. This call is often given at night, and it is seldom heard after the first week or two in June.



Equally common is a pig-like grunting sound that resembles a bouncing ball coming to a stop--"wak-wak-wak-wak," descending at the end and dropping in pitch. Marked differences in pitch between individuals giving this call, along with the frequency with which birds respond to tape recordings of this sound, suggest that it may be used by both sexes. This call seems to be the only call regularly employed by wintering birds.

A very mysterious call used only irregularly by Virginia Rails is the call historically recorded as that of the "Kicker." This sound has enjoyed a history shrouded in uncertainty. From Brewster (1901) and Ames (1920) to the more recent work of Reynard and Harty (1966-67), Bollinger and Bowes (1973), and J. A. Hagar (pers. comm.), the "Kicker" call has been variously ascribed to the Black Rail, Yellow Rail, and Virginia Rail. Even the earlier editions of Peterson's bird song records include the "Kicker" call as that of the Yellow Rail (an error since corrected). In any case, the call in question can be likened to the phrase, "kic-kic-kic, ki-queeah" or "tic-tic-McGreer." The reasons for its sporadic use and its biological significance are questionable to this day. The author has heard this call from a half-dozen localities in Massachusetts over a twenty-year period, always in late May or June, and during both day and night. Despite this, in many ways, the "Kicker" call is still a puzzle, regardless of its now proven identity as a vocalization of the Virginia Rail.

Other sounds characteristic of Virginia Rails are probably most often associated with the nesting cycle or occur between adults and young. A frequently heard note in mid-summer consists of a sharp "kik" or "kip," which very likely is used in maintaining contact with fledged young. This note is very

similar to a note of the Sora. Also used around the young is a low, guttural roll which sounds like "ka ka ka ka." The author has only once heard this peculiar note while an adult bird attempted to lead a brood of downy young to safety.

It should be obvious from these notes on vocalizations that much still remains to be learned about rail calls, even for a common species like the Virginia Rail. The key to unlocking some of this information lies in the hands of someone willing to spend lots of time afield with a good recording apparatus.

Sora: The Sora is a local breeder and a common to occasionally abundant migrant throughout much of eastern Massachusetts. It is somewhat less widespread in Massachusetts overall than the Virginia Rail. The nesting of this species is closely associated with extensive cattail marshes, ideally interspersed with areas of open standing water. It is generally less tolerant of vegetation other than cattails in its habitat than is the Virginia Rail, thereby being more restricted in its distribution due to less ideal habitat availability. Favored breeding marshes include the famous Lynnfield meadows and the Great Meadows and Parker River Refuges. Breeding elsewhere is scattered and probably sporadic. This may be partly due to its more gregarious and colonial nature than is exhibited by the Virginia Rail. Griscom (1945) has rightfully noted that the Sora "... calls regularly on migration, and a fine May chorus decreases to zero towards the end of the month." In suitable breeding habitat further north and where the species is common, it continues to be very vocal throughout the summer, and even in fall migration, regularly and routinely uses a variety of notes, quite unlike the other migrant rails. Thus, many local observers persist in the belief that the Sora is fully as common a summer resident as the Virginia Rail, when in fact it is not. Indeed, it may be decreasing with the continued destruction of prime habitat.

The spring migration calendar of the Sora roughly corresponds to that of the Virginia Rail, although it possibly arrives a bit later. In fall, however, it occurs in great abundance in many marshes, primarily in September, and is seemingly more sensitive to cold than its cousin. Most birds are gone by early October and the species is very unusual in winter. During its migrational peak in mid-September it can often occur in startling numbers along grassy water courses where a favored food, Wild Rice (*Zizania aquatica*), occurs in quantity. In such circumstances, Soras can often be seen clambering up the stalks for the seeds, or be heard by the dozen with every clap of the hands or slap of a canoe paddle on the water. Even a casual walk along a tidal waterway at high water will often jump them at this season as they are driven out of the salt meadows by the flooding tide. In general, the Sora seems more inclined to flush than the Virginia Rail when under similar circumstances.

Soras have several distinctive calls. The "song" of the male, a call given on migration as well as on the breeding grounds, is a sharp, upward inflected, "ker-weee." This call is often given at night for long periods of time. A note of similar quality and sounding like the phrase, "wheet," is said to be given in flight over a breeding marsh (J. A. Hagar, pers. comm.). Probably the species' most familiar note is the descending "whinney," often given when a loud noise is produced adjacent to a marsh containing Soras. This sound is probably given by both sexes, despite some published accounts to the contrary. During the fall migration when Soras often throng certain marshes, they typically utter a sharp, "keee" note when they are disturbed, often in a virtual chorus from all corners of the marsh. Like the Virginia Rail, too, they have various sharp notes that are probably used primarily in the presence of their nests or young.

Identification of Soras is easy. They lack the long bill of the other common Massachusetts rails, thus giving them a chicken-like appearance. Adults have a black throat and a gray face. Young lack the black throat and are less gray, being more tan color overall. The immatures are actually somewhat lighter in color than the adults, unlike the Virginia Rail which has a very dusky immature plumage.

Yellow Rail: Perhaps no species of bird regularly inhabiting Massachusetts is as poorly known locally as the Yellow Rail. The literature is filled with descriptions of its elusiveness and its general scarcity, as well as a number of published misconceptions as to the nature of its calls and "songs." At the outset, it should be stated that the Yellow Rail has never been satisfactorily proved to breed in Massachusetts, in spite of comments by Dr. Herbert Maynard as related in Griscom (1949). It should also be made clear that the calling of the Yellow Rail on migration may indeed be a rare event and that virtually all records of such activity in Massachusetts should be viewed as bogus. What then are the extensive accounts of calling Yellow Rails in the earlier literature?

As was explained under the account of the Virginia Rail, many of the early records of Yellow Rails were attributable to the "Kicker" call of the Virginia Rail. The Yellow Rail's principal vocalization (J. A. Hagar, pers. comm.) is the well-described (Peterson, 1980) "tic tic tic-tic-tic, tic tic tic-tic-tic," often likened to the clicking of two stones together in a rhythmic sequence. The sequence can vary but the quality remains the same. As pointed out previously, the older Peterson recordings of bird songs erroneously ascribed the "Kicker" call of the Virginia Rail to the Yellow Rail, hence much additional confusion.

The actual status of the Yellow Rail is that of an overlooked spring and fall migrant and a very rare winter straggler. The spring migration goes virtually unrecorded, and even in the early days of extensive bird collecting, the species was sel-

dom encountered in spring. Thus, it would appear that its principal migration through the state is in September through November with a peak coming in October and early November, well after the Soras have largely departed. Records suggest that it is best found on salt marshes, often where they turn brackish, and in old cranberry bogs, moist meadows, and even inland grain fields. The techniques described earlier in this paper on jumping rails with dogs or chains particularly apply to this tiny species. Apart from hearing Yellow Rails in boreal Canada, the author has only once definitely encountered this species in Massachusetts in over twenty years of active field work!

Recognition of the Yellow Rail is simple enough--the trick is to locate one. It can only be confused with the immature plumage of the Sora, but its smaller size, white bars on the back, and tiny bill should serve to distinguish it. In flight, a white patch of the trailing edge of the wing is diagnostic if it can be seen.

Black Rail: The Black Rail is a casual straggler to Massachusetts. There are several old specimen records with "... few now extant." (Griscom, 1955). There are also several recent reports, but only one recent specimen--a migrational overshoot at Nantucket on 31 March 1978 (Bird Observer of Eastern Massachusetts, 1978). Other modern records are of birds either imperfectly seen or heard by observers not fully aware of the difficulties involved in separating certain Rallidae vocalizations from other marsh sounds. Thus, the current status of the Black Rail in Massachusetts continues to be a puzzle. Its positive calling and collection in nearby Rhode Island and Connecticut suggest that the species could occasionally occur locally in appropriate salt meadows in late May and early June. At such times, the distinctive "kee-kee doo" call of the male in the middle of the night would probably be the best indication of its presence. Key locations to sample would seem to be the marshes in the South Dartmouth-Westport regions, the Barnstable marshes, and the marshes in the Rowley-Newburyport area.

The diminutive size, coupled with white back freckles, make this species easy to identify. Beware the downy young of the commoner species!

Purple Gallinule: Of the two gallinule species occurring in Massachusetts, the Purple is the far rarer. Principally a vagrant from the south in early spring and late summer, it also has shown up in mid-winter a surprising number of times. It has appeared in both inland and coastal areas and in many cases it does not seem confined to typical marsh habitats. There are enough records to make enumeration unnecessary.

Identification of adult Purple Gallinules is easy. Their violet-purple underparts and bronzy-green backs make them very striking. The absence of a red frontal bill shield and lack

of a white flank stripe when swimming separate them from the Common Gallinule. Young birds are a buffy brown below, darker above, and lacking the flank stripe typical of the grayer young Common Gallinule.

Common Gallinule: Gallinules and American Coots share the same basic environments. Both seem to require open water bordered by tall, emergent vegetation, often with islands of such plant growth as well. The Common Gallinule is a locally common breeding species in Massachusetts with the Great Meadow Refuge and the Parker River Refuge being premiere localities. It arrives from the south in mid-April and remains until mid-fall. Wintering is very unusual and is generally unsuccessful.

Since Common Gallinules are swimmers and often prone to allowing better views than is typical of many rails, their vocalizations can often be more clearly ascertained than those of their elusive cousins. Peterson (1980) aptly describes their note as, "A croaking kr-r-ruk, repeated; a froglike kup; also kek, kek, kek and loud, complaining hen-like notes." Certain of their notes are similar to those of the American Coot, but usually are more nasal and less harsh. Coots, also, do much of their calling in the open where they can be readily observed.

Identification is adequately described under the Purple Gallinule.

American Coot: Perhaps the least rail-like of the Rallidae occurring in Massachusetts, the American Coot is nonetheless a rail in the true sense. Like a gray football with a head, coots are to be seen floating and diving on almost any suitable pond in eastern Massachusetts during fall and early winter. In spring, their migration is less obvious, and as breeders, they are uncommon and very local. Parker River Refuge is the only marsh in the state presently sustaining a substantial breeding population.

Coot numbers seem to fluctuate from year to year during migration, with some years seeing great flights and other seasons few indeed. Local feed conditions may in part be responsible. In any case, the species is an interesting one and one that many folks seem to take for granted. It is an important game species in the South.

Coot vocalizations are generally similar to those of the gallinule, and since we have a limited breeding population, the species is less often heard than the Common Gallinule. It tends to be silent on migration.

With these species accounts, an attempt has been made to pull together some of the facts that will be most useful to the birder desiring some information on the local Rallidae, but

with the full realization that much still remains to be learned and discovered about this most fascinating and mysterious group of birds.

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Bibliography

- Ames, J. H. 1920. "A Solution of the Ornithological Mystery," Auk 19, 94-95.
- Bent, A. C. 1926. "Life Histories of North American Marsh Birds," Bull. U.S. Nat. Mus. 135, 1-490.
- Bird Observer of Eastern Massachusetts, Spring Summary, Vol. 6, 129.
- Bollinger, R. C. and E. Bowes. 1973. "Another Chapter in the 'Ornithological Mystery Story,'" American Birds 27, 741-742.
- Brewster, W. 1901. "An Ornithological Mystery," Auk 18, 321-328.
- Forbush, E. H. 1912. A History of the Game Birds, Wild-Fowl and Shore Birds of Massachusetts and Adjacent States, Boston, State Board of Agriculture.
- Forbush, E. H. 1925. Birds of Massachusetts and Other New England States, Vol. 1. Boston, Commonwealth of Massachusetts.
- Griscom, L. 1945. "Massachusetts Rails," reprinted from Bulletin of the Massachusetts Audubon Society, 1-12.
- Griscom, L. 1949. The Birds of Concord, Cambridge, Harvard University Press.
- Griscom, L. and D. E. Snyder. 1955. The Birds of Massachusetts, Salem, Peabody Museum.
- Meanley, B. and D. K. Wetherbee. 1962. "Ecological Notes on Mixed Populations of King Rails and Clapper Rails in Delaware Bay Marshes," Auk 79, 453-457.
- Meanley, B. 1965. "King and Clapper Rails of Broadway Meadows," Delaware Conservationist, winter issue, 3-7.
- Meanley, B. 1969. "Natural History of the King Rail," Bureau of Sports Fisheries and Wildlife, North American Fauna 67, 1-108.

- Peterson, R. T. 1971. A Field Guide to Bird Songs (records). Boston, Houghton Mifflin.
- Peterson, R. T. 1980. A Field Guide to the Birds East of the Rockies, Boston, Houghton Mifflin.
- Reynard, G. B. and S. T. Harty. 1966-1967. "Ornithological 'Mystery' Song Given by Male Virginia Rail," Cassinia 50, 3-8.
- Ripley, S. D. 1977. Rails of the World, Boston, David R. Godine (Publisher).
- Wetmore, A. 1960. "A Classification for the Birds of the World," Smithsonian Misc. Coll. 139, 1-37.
- Wingate, D. B. 1973. A Checklist and Guide to the Birds of Bermuda, Bermuda, Island Press Ltd.

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