

Maine Breeding Bird Atlas

Atlasing Grassland Birds in Your Block

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A Project of the Maine Department of Inland Fisheries and Wildlife



Morning in Maine's grasslands. Perched atop a small tree over swaying grasses, an Eastern Meadowlark sings in the day with repeated flute-like songs. Elsewhere, competing Bobolinks give chase to their rivals while giving harsh "chunk" calls and while others court females with a wild rambling songs. A Savannah Sparrow with a bill full of insects alights on a tuft of dry grasses before disappearing within. Off in the distance, a Northern Harrier slowly wheels over the landscape on V-shaped wings. A loud whistled call rises above the clamor of the grasshoppers and crickets and draws your attention to a lanky Upland Sandpiper perched on a weathered fence post. This is a potential scene in Maine's rapidly vanishing grasslands during the height of the breeding season.

The abundance and distribution of birds is closely tied to the mosaic of habitats found across the landscape. As one habitat type is altered, destroyed, or replaced, so too are the birds which depend upon them. Grasslands, as their name suggests, are open country areas dominated by grasses and relatively few trees or shrubs. These areas were relatively common in eastern North America following the colonization of New England and the widespread clearing of the old growth forests for agriculture by the Indigenous Americans and then European settlers. Today, as forests return in the east, urban areas and lawns are growing, traditional agricultural practices are changing, and grasslands suitable for nesting are becoming increasingly uncommon. Grassland birds are rapidly declining in New England. Breeding Bird Survey data show that 90% of grassland bird species in New England are declining. This means extra efforts must be made to document birds found in these rare habitats and get a sense of their breeding status and distribution in Maine.

In some situations, collecting breeding observations of these birds can be straightforward. Many grassland birds are highly vocal during the breeding season, defending territories with boisterous singing atop small trees or in grass thickets. If you find or already know of a grassland patch, you may be able to confirm some species easily. Many of these birds will also return to the same nesting grounds year after year. While some species are relatively conspicuous, other grassland species are more secretive and difficult to observe during the breeding season.

Where to observe grassland birds:

Where you focus your grassland bird observation efforts will depend upon your atlas block. Grassland birds can be found nesting in pastureland, agricultural lands, wet meadows, scrubby utility line corridors, and the increasingly rare areas of genuine grassland. These species summaries will help you to get a sense of which species you are likely to encounter in a given habitat type. Try to visit as many different types of grassland habitat as you can to maximize the diversity of species you might encounter.

Breeding Bird Codes:

Looking and listening for signs of breeding (characterized by the breeding codes) is fundamental to our atlas effort. Observing these behaviors when making observations in grassland areas is not always easy. In some cases, the highest code that may be observed will only be an indicator that the birds are "Possible" breeders. These behaviors include the "Singing birds" (**S**) or "In Appropriate Habitat" (**H**) codes. Remember that you can elevate the level of confidence that these birds are breeding in your block to "Probable" if you hear the same birds vocalizing during your revisit to the site 7+ days later (**S7**) or if you hear multiple singing individuals of the same species (7+) anywhere in an atlas block on the same day (**M**).



While listening for birds will likely be the primary way in which many grassland species are detected, you should still bring your binoculars or spotting scope along to watch for other indicators of breeding birds. Birds may be observed chasing off competitors (code **T**), visiting probable nest sites (code **N**), or moving together in pairs (code **P**). In some instances, you may even be able to confirm breeding should you observe behaviors like adults carrying nesting material in their bills (code **CN**), adults carrying food to their young (code **CF**), or spot some recently fledged young that are still dependent on the adults (code **FL**). On rare occasions, you may be fortunate enough to discover a nest with young (code **NY**) while conducting your observations. We do not recommend seeking out these birds or their nests. Simply report what you are able to observe from a safe and respectful distance.

Please do not use playback to stimulate birds to vocalize. The use of playback can have a disruptive effect on nesting birds if used improperly. Playing recorded vocalizations can cause birds to expend energy, become stressed, and become distracted from their usual activities (foraging, nest building, care of young, etc.). We ask that you please do not use playback to stimulate birds to vocalize and instead rely on detecting birds that are naturally visible and/or vocalizing.

Thorough summaries of each of the above breeding codes can be found in the Maine Bird Atlas Volunteer Handbook.

Submitting Bird Records:

Refer to the Maine Breeding Bird Atlas Volunteer Handbook for a detailed description of the options for submitting your bird records to the Maine Bird Atlas through eBird or on paper forms. On some of your surveys, you may not detect any species. It is very important that you still send us this information since knowing where species are not found is just as important as knowing where they are found. If you are submitting your bird records directly into the Maine Bird Atlas eBird portal, you can simply submit a checklist without any species noted in your list. If you have any questions about any of this, please contact the Maine Bird Atlas Coordinator (mainebirdatlas@gmail.com).

Resources:

Visit <https://www.natureinstruct.org/dendroica/> to listen to recordings of each of the focal species and hone your identification skills.

For more information about the Maine Bird Atlas (project of the Maine Department of Inland Fisheries and Wildlife), visit: <http://www.maine.gov/birdatlas>.

If you have questions or comments, contact:
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Maine’s Grassland Species

Northern Harrier: Often seen gliding swiftly along just above the ground with its wings held in a distinctive V-shape, the Northern Harrier (sometimes referred to as the “grey ghost”) is a raptor of Maine’s marshes and grasslands. The gray males arrive at the breeding grounds about a week before the larger, brown females. Once the females arrive, courtship and territorial displays begin. Courtship involves a “sky-dance” display in which the male flies above suitable habitat in a U-shaped flight pattern, swooping up and down, and sometimes performing aerial summersaults. Territorial birds may perform leg-lowering displays (where the legs hang low below the flying bird and talons are exposed) or grapple talons with challengers. Paired harriers will fly together and perform aerial food passes in which small birds or rodents are passed from male to female midair. Once paired, a nest site in a grassland or wetland within dense vegetation is selected. The female is the primary nest builder although the male may supply materials such as sticks, reeds, sedges, and lastly grasses to line the nest. Nest materials may also be transferred between adults in midair. After the eggs hatch, both sexes gather food for their young throughout the day. As young grow, they may begin exploring the area around the nest site on foot. As time goes on, they may make short flights out of the nest area. After fledging, young siblings may stay close together and are continually cared for by the adults until feeding tapers off and they leave the nesting grounds.



Photo Logan Parker

Safe Dates: May 15th to August 1st (applicable for **H** code). Use codes in the “Probable” breeding category with caution outside these dates.

Breeding Evidence: Although the nest site is often well concealed in vegetation, the Northern Harrier’s diurnal conspicuous habits makes observing breeding behaviors fairly easy. Once within the safe dates, a Northern Harrier observed foraging over suitable nesting habitat such as grasslands, wet meadows, and marshes can be coded as **H**. Not long after females arrive to the nesting grounds, courtship displays known as “sky-dances” commence and if you observe this within the safe dates, use code **C**. Note that these courtship displays can occur during migration, which is the reason for paying attention to the safe dates. For observations of territorial behaviors such as leg-lowering displays and talon grappling, use code **T**. If a pair is observed flying together or passing food items, use code **P**. Nesting material is gathered by both adults and is sometimes exchanged midair, so use code **CN** for observations of this behavior. Young harriers are active and mobile at the nest site and stay nearby to be fed by their parents, so use code **FL** for any observations of young that are not yet strong flyers.

Upland Sandpiper: Despite being a member of the shorebird family, the Upland Sandpiper is a terrestrial species and grassland specialist. During the course of the breeding season, this bird uses a variety of grassland habitats. Low-growing grassland with prominent perches are used during courtship while grasslands with taller vegetation are used for nesting. Their song has been described as a whistle-like call, being a series of gargling notes followed by a drawn out “*whip-whee-ee-you*” and is given by males either while circling in the air or when landing on a perch. Keep an ear out for their song in the early morning, but you can also hear them singing at night. To court females, males perform a fluttering aerial display followed by alighting on the ground or a perch and extending its wings over its back while singing. Their nests are constructed on the ground in areas with dense, moderately tall grasses. When agitated near the nest site or with



young, adults give an alarm call – “kip-ip-ip”. Areas of low-growing vegetation are used as the foraging grounds. When young are threatened by a potential predator, the adult may feign injury to try to draw the threat away.

Safe Dates: May 25th to July 15th (applicable for **S**, **H**, **S7**, and **M** codes). Use codes in the “Probable” breeding category with caution outside these dates.

Breeding Evidence: For a silent Upland Sandpiper observed within the safe dates and in appropriate breeding habitat, use code **H**. If the wolf whistle-like calls are heard, use code **S**. If you hear one singing, return to the same location 7 or more days later to upgrade to the **S7** code. If two individuals are observed feeding together or interacting in a manner that suggests a pair, use code **P**. This can be upgraded to code **C** if the aerial and/or perched courtship displays are observed. If the agitated vocalizations (an emphatic “kip-ip-ip”) are heard, use code **A**. Although their nest sites are typically well-concealed, recently fledged young not yet capable of strong flight may be observed foraging in habitat with low-growing vegetation later in the breeding season, and these observations can be coded as **FL**. *The Upland Sandpiper is a state-listed Threatened Species. Keep a respectful distance of 300’ or more from nest sites and young birds and depart from the area of birds become distressed during your observations.*

Short-eared Owl: The Short-eared Owl is Maine’s only ground-nesting owl and is a very rare breeding bird in the northern portion of the state. These owls are usually active day and night and can often be observed from late afternoon to dusk. Unlike most of Maine’s owls, Short-eared Owls are more often seen than heard. Their sounds and vocalizations include “hoo”s, barks, hisses, and bill snaps. Individuals are most active at dusk and dawn. The best way to try to observe this species is to scan for foraging owls in large grasslands or marshes during twilight. During the early breeding season, males perform aerial displays to court females. Nests are constructed from grasses and feathers on knolls, ridges, and hummocks in grasslands and grain stubble fields. Adults will occasionally feign injury to draw potential predators away from the nest.

Safe Dates: May 1st to August 1st (applicable for **S**, **H**, and **S7** codes). Use codes in the “Probable” breeding category with caution if outside these dates.

Breeding Evidence: Short-eared Owls nest later than the other owl species and should not be coded before May in most cases. All potential breeding records should be carefully documented. The most likely breeding code for this species is **FL** for observations of recently fledged young not yet capable of strong flight. These young birds leave the nest from 2 to 3 weeks after hatching, but remain on the ground nearby under the care of their parents another few weeks. *The Short-eared Owl is a state-listed Threatened Species. Keep a respectful distance of 300’ or more from nest sites and young birds and depart from the area of birds become distressed during your observations.*



Photo Tom Koerner

American Kestrel: The American Kestrel, once known as the Sparrow Hawk, is the smallest falcon in North America. It is primarily associated with open habitats such as grasslands, meadows, powerline right-of-ways, and agricultural landscapes, but will also take up residence in more



developed areas if suitable nesting and hunting sites are present. Kestrels hunt in open areas with low-growing vegetation and are often observed perched on a treetop, utility wire, or building from which they scan their surroundings for prey. In the absence of a perch, kestrels will hover in place by rapidly beating their wings. American Kestrels are a cavity nesting species. They do not, however, excavate nesting cavities. They instead rely upon the abandoned nest sites of woodpeckers or will utilize nestboxes. They prefer nest sites that are in or on the border of open areas. Males are responsible for finding these nest sites and must attract a female with their plumage, dive displays, and quality of their selected nest site. Copulation is a commonly observed breeding behavior between mated birds and can be initiated by either pair member. The transfer of food items (from males to females) is part of pair bonding and is a probable indicator that kestrels breed within the area. Pairs tend to remain bonded throughout life and will nest together year after year. Kestrels will breed with new partners, however, if one of the pair is killed or disappears.

Safe Dates: May 25th to July 25th (applicable for **H** code). Use codes in the “Probable” breeding category with caution if outside these dates.

Breeding Evidence: A possible indicator that American Kestrels breed in the area would be the presence of an adult within the safe dates and in appropriate breeding habitat (code **H**). Agitated adult may give “*klee*” calls from a nearby perch if they feel intruders are too close to their nest, and you can use Code **A** if this is observed. For an adult visiting a probable nest site or nestbox, use code **N**. For observations of aerial courtship displays, copulation (often on a tree branch near a nest site), and courtship feeding, use code **C**. American Kestrels defend their nesting territories and give chase to larger raptors such as Red-tailed Hawks and Cooper’s Hawks. Fighting and aggressive displaying (spreading the wings and tail feathers) may also occur between male kestrels early in the breeding season. For both of these types of territorial defense, use code **T**. If a pair are observed together and are interacting, use code **P**. Confirming breeding may be easier during the latter portion of the season. If you observe adults with food disappearing into a nest to feed begging young, or hear the begging calls of young and observe an adult depart, these can be coded as **FY**. Since Kestrels typically carry food year-round, the **CF** code should rarely be used and only when a known nest is nearby, particularly since any known nest could be coded using the **ON** code.

Horned Lark: The Horned Lark is a songbird of low-growing grasslands or agricultural lands and can be found year-round in portions of Maine. Pairs form over the winter and flight songs play a crucial role in courtship. The song consists of two parts: a series of 2-4 ascending notes followed by a slurred series of chittered notes which decrease and increase in pitch. Courtship also involves a display in which the male droops his wings, spreads his tail, makes chattering calls, and displays his black chest patch to a female. A second song (long series of rambling notes followed by rapid series of slurred notes) is used for territorial defense and is often given from the ground. Territorial defense can also include chases, threat displays in which the male calls (“*su-weet*”), gives chase on foot, and sometimes includes physical fights between males. To build their nests, females dig a shallow bowl into the ground and line the depression with fine pieces of vegetation such as grasses, rootlets, and pieces of corn stalk. The cup is then lined with fur, feathers, and even lint. The outer edge of the nest is “paved” with dirt clods, dung, or pebbles. The female is solely responsible for nest construction, incubation, and brooding hatched young. Males and females both provide food for their young, but are secretive and land away from the nest, approaching it on the ground to avoid detection when feeding. About a week



Photo Logan Parker



after hatching, young larks will leave their nest in the company of their parents and continue to be fed until about a month after hatching.

Safe Dates: April 15th to July 25th (applicable for **S**, **H**, **S7**, and **M** codes). Use codes in the “Probable” breeding category with caution if outside these dates.

Breeding Evidence: For a silent Horned Lark within the safe dates and in appropriate breeding habitat, use code **H**. For a singing adult use code **S** and upgraded to **S7** if heard at the same location 7 or more days later. If two individuals are observed together or interacting in a manner that suggests a pair, use code **P**. If an adult is observed performing a courtship display, use code **C**. If the territorial song (long series of rambling notes followed by rapid series of slurred notes), display, or fighting between larks is observed, use code **T**. For observations of a female carrying any of the various materials used to construct her nest, use code **CN**. If a female is observed digging a nesting depression or constructing her nest, use code **NB**.

Sedge Wren: The Sedge Wren is exactly what its name implies— a wren typically associated with sedge-dominated wetlands and tall grassy fields. The breeding range of this species is generally west of Maine, however, Sedge Wrens have occasionally been reported in Maine during the breeding season, often not initiating nesting until July, August, or even September. This small wren is highly secretive and nests within dense growths of sedges and grasses in wetlands on the edge of ponds, freshwater marshes, and coastal marshes. Males song is a dry staccato chatter “*chip, chip, chrrrrr-rrr*” and can call throughout the day and night. Like many other wren species, the Sedge Wren will construct multiple nests. The nest is typically a spherical mass of sedges and grasses with an entrance on its side. Sedge Wrens are known to destroy the nests and eggs of competing pairs or those of other birds.

Safe Dates: June 1st to August 1st (applicable for **S**, **H**, **S7**, and **M** codes). Use codes in the “Probable” breeding category with caution if outside these dates.

Breeding Evidence: If you observe a silent bird or hear any of their calls within the safe dates and in appropriate breeding habitat, use code **H**. If you hear the dry staccato chattering song of the male within the safe dates, use code **S** and upgrade to **S7** if heard at the same location 7 or more days later. Since multiple dummy nests are built, if you observe a bird constructing a nest or carrying nest material, use code **B**. If agitated behavior is observed, use code **A**. If a Sedge Wren is observed destroying the nest of another pair or bird or squabbling is observed, use code **T**. If two individuals are observed together or interacting in a manner that suggests a pair, use code **P**. The best way to confirm breeding is to observe an adult carrying a fecal sac (code **FS**), carrying food (code **CF**), or observe the young being fed (code **FY**). *The Sedge Wren is a state-listed Endangered Species. Keep a respectful distance of 300’ or more from nest sites and young birds and depart from the area if birds become distressed during your observations. Please document precise locations for any observations of this species.*

Grasshopper Sparrow: The Grasshopper Sparrow is a songbird of dry, sparsely-vegetated grasslands. In Maine, this species will tolerate a moderate degree of brushy habitat during the breeding season. These birds have never been documented north of Augusta in Maine. The Grasshopper Sparrow earned its name from its insect-like song of “*tsick, tsick, tsurrrrrr*”. Males arrive at the nesting grounds 3 to 5 days prior to females, with pairs forming and nest building commencing soon after the latter’s arrival. Males court females with a fluttering flight and a second song (a short, buzzy series of notes that varies in pitch and is more musical than their typical song). This is



Photo Logan Parker



given from a perch or while in the air. The female constructs a domed nest from grasses, and the nest is typically very difficult to locate because it is beneath a canopy of vegetation. To help avoid detection of the nest, adults will approach and depart the nest on foot. Nestling are fed primarily caterpillars, although a variety of other insects are also fed to the young.

Safe Dates: June 1st to July 25th (applicable for **S**, **H**, **S7**, and **M** codes). Use codes in the “Probable” breeding category with caution if outside these dates.

Breeding Evidence: Listening for the insect-like songs of Grasshopper Sparrow is the easiest means of determining if this songbird is a possible breeder in your block. If you hear a singing Grasshopper Sparrow within the safe dates, use code **S** and upgrade to code **S7** if heard again at the same location 7 or more days later. If the fluttering courtship flight is seen or the more musical courtship song is heard, use code **C**. Males will chase rivals out of their territory (code **T**). If a female is observed gathering nesting materials such as grasses, plant stems, or bark, use code **CN**. If an adult is observed carrying insects in their bill, use code **CF**. Adults will perform a distraction display (code **DD**) and feign injury if a predator approaches the nest or young. Given the Grasshopper Sparrow’s limited range and declining population in Maine, all observations of this species during the breeding season should be carefully documented without finding or disturbing the actual nesting locations. *The Grasshopper Sparrow is a state-listed Endangered Species. Keep a respectful distance of 300’ or more from nest sites and young birds and depart from the area of birds become distressed during your observations.*

Clay-colored Sparrow: The Clay-colored Sparrow nests in abandoned pastures, hayfields, areas with extensive low shrubs, and regenerating clearcuts, particularly in areas near stands of trembling aspen. They are often overlooked but they do sing their buzzy insect-like song well into July, often singing from a low perch at all times of the day. Males defend fairly small breeding territories, but range beyond their territories for feeding on a variety of seeds and invertebrates. Nests are built by the female close to the ground.

Safe Dates: June 1st to August 1st (applicable for **S**, **H**, **S7**, and **M** code). Use codes in the “Probable” breeding category with caution if outside these dates.

Breeding Evidence: Listening for the insect-like songs of Clay-colored Sparrows is the easiest means for determining if this species is potentially breeding in your block. If you hear a Clay-colored Sparrow within the safe dates, use code **S** and upgrade to code **S7** if hear it again at the same location 7 or more days later. Territorial disputes with other males or with Chipping or Song Sparrows are usually resolved with short chases or perch displacement (code **T**). Both parents feed young. If an adult is observed carrying insects in their bill, use code **CF**. Adults will perform a distraction display (code **DD**) and feign injury if a predator approaches the nest or young.

Field Sparrow: The Field Sparrow nests in old fields with low shrubs, forest edges and openings, and along powerlines. Listen for their distinctive song which sounds like a ping-pong ball bouncing on a table given by males from a top of a shrub early in the breeding season. The male closely follows the female around during nest building and egg-laying periods. Nests are built near the ground, often at or near the base of woody vegetation. Only the female incubates the eggs, but both sexes feed the young. Birds feed on a variety of seeds and invertebrates.

Safe Dates: May 20th to August 1st (applicable for **S**, **H**, **S7**, and **M** codes). Use codes in the “Probable” breeding category with caution if outside these dates.

Breeding Evidence: Listening for their distinctive call is the easiest means for determining if this species is potentially breeding in your atlas block. If you hear a Field Sparrow within



the safe dates, use code **S** and upgrade to code **S7** if heard again at the same location 7 or more days later. Males defend territories (code **T**) and a pair (code **P**) often forages close together before egg laying. Both parents feed young. If an adult is observed carrying insects in their bill, use code **CF**. Adults will perform a distraction display (code **DD**) and feign injury if a predator approaches the nest or young.

Vesper Sparrow: Although once fairly common following the colonization of New England, the Vesper Sparrow has become increasingly rare in the northeast. In Maine, this sparrow can be found breeding in blueberry barrens, dry grasslands, and old fields in the southern portion of the state. Their song is described as sweet and musical and consists of a series of down-slurred whistles, a rising and falling trill, ending in a series of jumbled twitters. Vesper Sparrows are noted for their propensity for singing well into the twilight hours. Females construct cupped nests from grasses, rootlets, and twigs on the ground under a canopy of vegetation and are lined with feathers, mosses, and animal hair. While the female is primarily responsible for incubation and brooding, both parents are involved in feeding young. While the diet of the adults often includes grains and seeds, insects are gathered in and on the edges of nearby woodlands for the nestlings. After 1 to 2 weeks, young fledge from the nest and remain in the care of the adults for up to a month.



Photo Logan Parker

Safe Dates: May 20th to July 25th (applicable for **S**, **H**, **S7**, and **M** codes). Use codes in the “Probable” breeding category with caution if outside these dates.

Breeding Evidence: If you observe a silent bird or hear any of their calls within the safe dates and in appropriate breeding habitat, use code **H**. Although secretive nesters, Vesper Sparrows are assiduous songsters and adults will sing from prominent perches (fence posts, trees, and shrubs) throughout the day. Singing adults should be coded as **S** and upgraded to **S7** if heard singing at the same location 7 or more days later. Females travel across the landscape to different habitat types gathering materials needed for constructing their nest. If a sparrow is observed gathering or flying with nest materials, use code **CN**. Vesper Sparrows also travel to the edges of their nesting grounds to gather insect prey to feed their nestlings. Watch for birds carrying food items, and code these observations as **CF**.

Savannah Sparrow: Among Maine’s grassland sparrows, the Savannah Sparrow is the state’s most widespread and abundant species. This secretive songbird can be found inhabiting agricultural landscapes, wet meadows, and coastal grasslands throughout the breeding season. Their song begins with a few high-pitched introductory notes and ends with a buzzy trill. Be careful not to confuse the Savannah Sparrow’s song with that of the rarer Grasshopper Sparrow (that sounds superficially similar). Males may mate with multiple females who construct their cupped nests from grasses on the ground under a canopy of tall, dense vegeta-



Photo Logan Parker



tion. Females are solely responsible for incubation while both males and females participate in brooding and feeding. Savannah Sparrow nestlings are fed caterpillars, sawfly larva, and other insect prey. Young fledge from the nest after approximately 10 days. These young birds are cared for by the female (and sometimes the male) for at least another 10 days before the birds disperse.

Safe Dates: May 20th to August 1st (applicable for **S**, **H**, **S7**, and **M** codes). Use codes in the “Probable” breeding category with caution if outside these dates.

Breeding Evidence: If you observe a silent bird or hear any of their calls within the safe dates and in appropriate breeding habitat, use code **H**. Like many secretive grassland birds, Savannah Sparrows can often be more easily heard than seen. Singing birds can be coded as **S** and upgraded to **S7** if heard at the same location 7 or more days later. If you observe a female gathering grasses for constructing a nest, use code **CN**. Savannah Sparrows observed gathering and transporting insect prey to feed young should be coded as **CF**

Bobolink: While many grassland birds are secretive and sometimes difficult to observe, the Bobolink is a stark contrast. Their songs (given in flight or on high perches) are a long and complex series of notes which is unmistakable but difficult to describe. Males arrive at their meadow nesting grounds about a week before females arrive. Males establish and defend territories in which they mate with multiple females. Intruding males are vigorously chased from the territory by its holder. Males court females with displays consisting of tail-fanning and lowering, wing-spreading, and an upright posture.



Photo Logan Parker

Nests of dried grasses are constructed by females. Although the males do not feed incubating mates, they may occasionally visit the nest sites prior to hatching. Males and females are both responsible for feeding young and provision them with grasshoppers, crickets, caterpillars, and spiders. Adults will continue to feed their young until about a month after they leave the nest.

Safe Dates: June 1st to July 25th (applicable for **S**, **H**, **S7**, and **M** codes). Use codes in the “Probable” breeding category with caution if outside these dates.

Breeding Evidence: For observations of silent birds observed within the safe dates and in appropriate breeding habitat, use code **H**. Bobolinks heard singing their long, complex songs (often from atop a tree, shrub, or powerline) should be coded as **S**. Hearing these calls again 7 or more days later in the same location can be coded as **S7**. For observations of males chasing other birds, use code **T**. If you observe the crouching courtship display, use code **C**. If 7 or more singing Bobolinks are detected in the same block, use code **M**. Early in the breeding season, females may be observed carrying the dry grasses used for nest construction (code **CN**). Later in the season, watch for adults flying with bills full of invertebrates to feed young (code **CF**). After fledging, flightless young may be observed walking, running, or hopping among the meadow vegetation (code as **FL**). Adults continue to feed these young for several weeks and can be coded as **FY**.



Eastern Meadowlark: The Eastern Meadowlark can be found in Maine's meadows, pastures, and hay fields during the breeding season. Their song is plaintive and flute-like and is sung by males from trees, utility poles, and fence posts along the edges of their territories. Intruders are chased by the territory holders and occasionally physical fights can break out between competitors. Females pair with males soon after arriving. Males typically breed with multiple females within their territory. Females alone are responsible for nest construction and gather grasses, strips of bark, and other vegetative matter from the surrounding area. The nest is a domed cup that is well-hidden within the surrounding grasses. Females incubate the eggs and are primarily responsible for feeding the young once they hatch, although males may occasionally assist. Nestlings leave the nest within 10 to 12 days after hatching. Although young leave the nest flightless, they are capable of running quickly over short distances to seek out cover when threatened.



Photo Logan Parker

Safe Dates: May 15th to August 1st (applicable for **S**, **H**, **S7**, and **M** codes). Use codes in the "Probable" breeding category with caution if outside these dates.

Breeding Evidence: If you hear the plaintive, flutelike song of the Eastern Meadowlark in the appropriate breeding timeframe, use code **S** and upgrade to **S7** if heard at the same location 7 or more days later. If two individuals are observed together or interacting in a manner that suggests a pair, use code **P**. If territorial chases or fighting between males is observed, use code **T**. If a female is observed flying with insects in her bill, use code **CF**. Recently fledged Meadowlarks are flightless and may be observed walking or running along the ground under the care of their parents. These birds should be coded as **FL**.