

Breeding Codes and Interpretations

Observed	
O	A non-breeder or migrant (male or female) <i>observed</i> or heard between June 1 and July 31 does not suggest breeding, regardless of habitat. Use this code for species observed in unlikely breeding habitat, out of their normal breeding range, flying over, or with no indication of breeding. This code applies to vultures or raptors flying over, to ducks summering on an urban pond with no breeding habitat, or a heron foraging when no heronry exists in the block. This code records the presence of the species but does not suggest breeding.
Possible	
X	A male or female observed in possible suitable nesting habitat within safe dates suggests possible breeding. Note that many species do not have safe dates. Thus, this code can only be used for some species.
S	<i>Singing</i> male detected once in possible suitable nesting habitat indicates possible breeding. If you hear a male of the same species in the same location on another visit determine if code T applies.
Probable	
M	<i>Multiple</i> singing or territorial birds of a species detected within a block on one day indicates probable breeding. This code is the lowest level of evidence that a species is probably breeding in the block. Observation of a minimum of seven singing individuals is needed. Use this code only for remote blocks where only one visit can reasonably be made during any given year. If more than one visit to the block can be made, code T should be evaluated for use.
P	<i>Pair</i> (male and female) observed in suitable nesting habitat when apparently holding a territory suggests probable breeding. This code is used when it is fairly certain that a mated pair of birds has been observed. Note that two birds of the same species observed together are not always a pair, especially when males and females look alike. In sexually monomorphic species, behavior may indicate a pair.
T	<i>Territory</i> establishment can be based on a singing male observed on at least two different days a week or more apart in the same location. Such repeated observations are a good indication that a bird has taken up residence. Chasing of other birds of the same species often marks a territory and should be recorded using code T. One male American Robin chasing another falls under this code, as would two male owls hooting at each other from opposite sides of a canyon. Caution should be used for some species such as raptors and hummingbirds since they exhibit territorial behaviors in defense of feeding areas and favorite perches while wintering and migrating.
C	<i>Courtship</i> behavior or copulation indicates probable breeding. This code includes courtship displays and food exchanges. Prairie-chickens seen dancing on a lek, hummingbird courtship flights, and the bill tilt or topple-over display of cowbirds would fit this code. Use this code cautiously for ducks and grebes since they often court during migration. For bird banders, this code should be used for females with a brood patch or males with a cloacal protuberance.
N	Visiting a probable <i>nest-site</i> indicates probable breeding when no further breeding evidence is obtained. This code is especially useful for cavity nesters and shrub-nesting species that fly into the same locations and disappear repeatedly. Repeated use of the same probable nest-site must be observed.
A	<i>Agitated</i> behavior or anxiety calls heard from an adult suggests probable breeding. This behavior suggests the probable presence of a nest or young nearby. Do not include agitation that you induce by "pishing" or using taped calls. A goshawk that calls in a distressed fashion falls into this category. If the goshawk swoops at you, you upgrade to the confirmed breeding code DD.
B	Nest <i>building</i> by wrens (Cactus, Bewick's, House, and Marsh), Verdins, or excavation of holes by woodpeckers indicates probable breeding. In Verdins and some species of wrens, unmated males will build nests to attract females. Thus, nests built by these species do not confirm breeding. Also, woodpeckers usually excavate one nest hole and other holes for roosting. Thus, excavation does not confirm breeding in woodpeckers.

Confirmed	
NM	Birds observed carrying <i>nesting material</i> (e.g. sticks, hair, grass, mud, cobwebs) confirms breeding. This applies for all species except for some species of wrens (Cactus, Bewick's, House, March) and Verdins.
NB	<i>Nest building</i> at the actual nest site by all except woodpeckers, Verdins, and wrens, confirms breeding.
PE	<i>Physiological evidence</i> of breeding (i.e., highly vascularized incubation (brood) patch or egg in oviduct) based on a bird in hand confirms breeding for bird banders only.
DD	<i>Distraction display</i> or injury feigning for defense of an unknown nest or young confirms breeding. This code is used if an adult bird is seen trying to lead people away from a nest or young. A Killdeer giving a "broken wing" act fits this code. The difference between this code and agitated behavior is that the adult bird puts its own life in danger with a distraction display.
UN	A <i>used nest</i> confirms breeding. Caution: This must be carefully identified if it is to be used, and requires a written verification form. Some nests such as those of orioles are persistent and characteristic, but others are more difficult to identify. Be sure that the nest was used during the atlas period. Do not use this code for species that build multiple nests in a breeding season, such as Verdins and Cactus Wrens. Do not collect nests because some species roost in them all year and it is also illegal to collect nests or eggs without a permit.
FL	Recently <i>fledged young</i> (of altricial species) or downy young (of precocial species such as galliformes, shorebirds or waterfowl) confirm breeding. Fledged young should be incapable of sustained flight. This code does not apply to mobile immatures. This code should be used with caution for species such as starlings and swallows that may move relatively great distances soon after fledging. Use of this code should be used only for recently fledged passerines in the natal areas that are still dependent on parents. A young cowbird begging for food confirms both the cowbird and the host species. If feeding of young by adults is observed use code FY.
ON	Adults entering or leaving a nest site in circumstances indicating an <i>occupied nest</i> confirms breeding. This code is not generally used for open-cup nesting birds, unless the nests are high above the ground and the contents cannot be seen. This code should be used mainly for cavity nesting birds that enter a hole and remain inside, leave a hole after having been inside for some time, or for adults that exchange occupancy of a cavity.
FS	An adult observed carrying a <i>fecal sac</i> confirms breeding. Many passerine adults keep their nests clean by carrying away membranous, white fecal sacs.
FY	<i>Feeding young</i> , carrying food for young, or feeding recently fledged young confirms breeding. Be especially careful on the edge of a block. Some birds, such as birds of prey, continue to feed their young long after they've fledged and may move considerable distances. Some birds, such as Common Ravens, may carry food long distances to young in a neighboring block. Also, care should be taken to avoid confusion with courtship feeding, code C.
NE	A <i>nest</i> with <i>egg(s)</i> , undisturbed nest with a bird in incubation posture, or eggshells found below the nest confirms breeding. Finding a cowbird egg in a nest is coded NE for both the cowbird and the host. Be careful not to disturb the vicinity of any nests.
NY	A <i>nest</i> with <i>young</i> seen or heard confirms breeding. The presence of a cowbird young is coded NY for both cowbird and host species. Caution must be used in approaching nest sites to minimize disturbance. Most confirmations can be accomplished without locating actual nests (Robbins 1981).