

Nestling Banding Protocol



Tree Swallow nestlings are measured and banded to investigate growth rates across sites and between years, and to look at overall site fidelity and survivorship. Nestlings are referred to as “locals.” The same bander/volunteer should measure and/or band an entire nest to ensure consistency.

Timing: Tree Swallow nestlings can usually be banded from 9 to 12 days old. (Remember that hatch day is day 0.) Developmental landmarks are much more reliable than age in establishing the correct time to band. The ideal time is when the primaries break sheath and the legs lengthen and become scaly. If you try to band too early, you risk harming the continued growth of the bird’s leg. If you band too late, you risk the nestlings fledging (jumping from the nest) prematurely.

Please note: Many factors (weather, insect availability, parasite load) can affect the growth rate of nestlings, and all nestlings in a nest may not be at the same developmental stage. It is common for one or two chicks to be smaller or less developed than their siblings. When in doubt, leave them alone and come back in a day or two to try again. It is ok to delay banding one or more chicks from a nest.

A good indicator of whether a nestling is old enough to band is the development of the feathers. Birds’ feathers grow in a sheath. The developing feather is called a “pinfeather” until the vane emerges from the sheath and expands. A bird with pinfeathers on the wings (nothing yet emerging from the sheath) is too young to band. A nestling with feathers that are beginning to unfurl or extend about one quarter of an inch from the sheath is just right.

Leg size and color should also be used to determine whether a chick is bandable. Tree Swallow nestlings have fat, short legs that lengthen, slim down, and become scaly as they grow. The active areas of bone growth are thicker than the bone they are manufacturing. Because these areas of bone growth are at the tips of the bone, we are waiting for the leg bone (the “tarso-metatarsus”) to grow long enough that the band will not impinge on these active growth areas. If a bird is banded too early, the band will constrict the growth areas and the blood supply that feed them. If you are at all unsure, use a leg gauge to test whether or not the leg is ready to band. All Tree Swallows (nestlings and adults) should fit a size one band.

Once the primary sheath is broken and the legs have slimmed down, nestlings should be banded as soon as possible. ***Tree Swallow nestlings should absolutely be left alone after 12 days!*** As with adults, avoid banding during cold or wet periods.

If you are unsure whether a bird is bandable, do not attempt to band it. Bands are difficult to remove, and unbanded, healthy nestlings are much better than banded, injured nestlings.

Handling Chicks: Nestlings are soft and squishy. Pick them up very carefully, one at a time, lifting the whole body from the bottom. Like the adults, nestlings have an automatic reflex to grab whatever is beneath them when they are picked up. Use the same procedure to take the nestlings out of the nest box as you would use for adults. Pick each nestling a few inches off the nest and remove whatever is in its feet before removing it completely from the nest box. Be very careful if you have long fingernails.

Always remove each nestling individually, but you can place the entire brood in one bird bag. Count each chick as you place them in the bird bag, and again when you return them to the nest. Nestlings are extremely sensitive to heat, so be sure to keep them out of the sun, wind, & weather.

Because there is little risk of chicks escaping from the hand, banders can use the gentlest of touches when handling them. They are unable to fly, but often wiggle and struggle, making it difficult to measure and band them. There is no conventional way used by all banders to hold chicks. Find a way that is comfortable for you, and safe for the birds. Most banders hold a chick as they would an adult in the “banders grip.” Keep the wings tucked close to its body; hold its head between your first and second finger with its belly facing up from the palm of your hand.

Chicks don’t exhibit signs of stress from handling like adults, however they are extremely sensitive to the elements. Always keep the nestlings out of the wind and sun. Parents can become greatly distressed to see you at their nest box removing their young. Sit a short distance from the nest box, out of direct sunlight. Minimize the amount of time that you have the chicks out of the nest box as much as possible, and work quickly, quietly, and efficiently to minimize stress to the chicks and parents.

Data Collection: If possible, band all nestlings in a nest at the same time. However, see above for important safety considerations on timing.

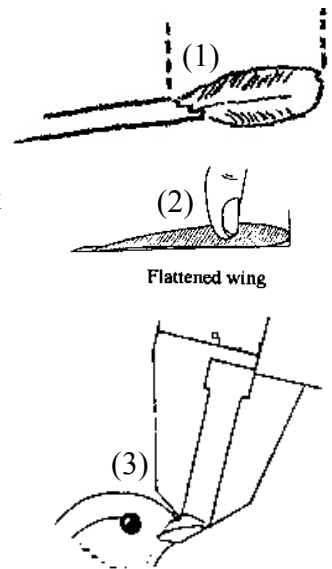
The process of banding chicks is the same as for adults. Chicks take the same band size as adults (size 1). It is usually placed on the right leg. Double check the fit with a leg gauge. As with adults, the band should be freely rotate when closed on the bird’s leg.

All scales and codes are described on the *Chick Banding Sheet*.

Longest exposed primary: Use calipers to measure from the end of the sheath where the feather emerges to end of the feather. (1)

Flat Wing: Flat wing is measured by flattening the wing against the ruler. (2)

Culmen (nares to tip): Use calipers to measure the distance from the anterior (distal) end of the nostril to the tip of the bill. (3)



Returning Chicks to the Nest Box: When nestlings are returned to the nest box, they usually just sit quietly. If they are active (flapping, cheeping, generally upset), cover the entrance hole for a bit until they settle down, perhaps up to five minutes. Be sure to count the chicks as you return them to the nest box. Depart from the nest site quietly.