The Barn Owl (Tyto alba)

The Barn Owl has nearly world-wide distribution, being absent from only the high Latitudes. It has been introduced into some Pacific islands for rat control and is provided nest boxes in Malaysian palm nut groves for the same purpose. While the barn owl is found all over the US, its numbers are particularly high in California and the Southwest. Farmers and ranchers are increasingly attracted to the barn owl's ability to control rodents better than traps, poison, or cats and at no cost.

Barn owls in favorable habitats produce large broods once or twice a year. Each young owl as it nears maturity will eat the equivalent of a dozen mice per night if such prey is available. Adult barn owls kill and consume the equivalent of one large rat or gopher per night. The Owl Rehabilitation Research Foundation, Ontario, Canada, reports that barn owls consume twice as much food for their weight as other owls.

The number of barn owls in an area is limited by both prey base and suitable nesting sites. In the West, barn owls not only nest in natural trees cavities and buildings, they also nest in cavities in cliffs and cut banks, stacked hay bales, and in palm trees. Use of these sites often leads to nesting failure such as when bales are shifted or the young outgrows the nest at the base of palm fronds.

This brochure offers several nest box designs that can be made from off the shelf materials. In addition, nest box designs that can be made from off the shelf materials. In addition, nest box designs for boxes made from plywood and lumber can be found in a companion brochure, Using Barn Owls for Rodent Control (209-369-8578) and in several other publications: Woodworking for Wildlife, Minnesota Dept. of Natural Resources World Aug 1991.

Prepared for the Western Regional Office of the National Audubon Society in cooperation with RRR, Simi Valley, Ca. a nonprofit wildlife conservation center, and Patagonia, Inc, Ventura Ca. a corporation which supports wildlife habitat protection and restoration. We want to hear about your success with barn owl nest boxes. Send comments to V.J. Ketner, 169 Via Baja, Ventura, Ca 93003. Extra copies of this brochure are available.
How to Build Nest Boxes from off-the Shelf Materials:

Fig 1. A large nest and daytime hide for barn owls made from a 55 gallon plastic barrel that was used for juice concentrate. Barrels used for petroleum products should not be used. This nest barrel has an angled side entrance about 6 x 6 inches with a landing board. A sunshade is anchored with pipe standoffs to the top, and eye bolts are secured to the sunshade. There are ventilation and drain holes in the top and bottom, respectively. As nesting material, broken bark is generally preferable to sawdust or shavings. Pine needles and leaves can also be used. Straw or hay, which support toxic fungus, should not be used. This owls will soon deposit a “felt” of regurgitated fur and bone castings that will mix with the bark, etc. Some recommend this debris be cleaned out every year, but in the wild the owls build up thick deposits with no ill effects, and its ammoniacal odor tends to repel ants and flies. Good ventilation is important both for cooling and odor dissipation.

Fig 2. Nest barrel (fig. 1) shown propped and wired in place in liveoak tree. An open flight path to the entrance is desirable, as is much shade as possible. Barn owls have nested twice in one season in another barrel in a similar tree location at a ranch near Lake Casitas, California. If rope is used it should be UV resistant. Galvanized wire will last for a long time, as will the polyethylene barrels, which are preferable to steel barrels. The latter are heavy and the owls in climatic extremes. Drain holes are essential, whichever type of barrel is used. A framed entrance hole can be provided in the barrel’s end rather than the side to optimize the flight path of a given site.

Fig 3. The nest containers made from one plastic barrel. These are large enough for medium to large barn owl broods and are easy to install with eye bolts in the 4 x 4 foot plywood lids. Ventilation cuts are made in the top edge of the plastic barrel, which is fastened to the plywood top with 4 inch deck screws set at an angle. If the screws protrude through the plywood strike the tips off with a hammer, and paint the top with a white exterior latex. The entrance hole is framed in with 1-inch wood strips that "sandwich" the plastic. Owls do not like to land on thin thresholds. A screened drain is provided in the bottom, which is covered with broken bark and pine needles. Barn owl nest containers should be installed at least 12 feet above the ground in an area with no human or vehicular disturbance below the nest if possible. Owls will use nest facilities in
areas of disturbance if the containers are 30 feet or more above the noise and they have some period of minimal disturbance in which to "bond" to the nest container. Barn owls are very sensitive to intrusion during a critical period of brood development that extends from 1 week before hatching to 2 weeks after, during which time they will destroy the young and abandon the nest. In the early stages of incubation, they may abandon the eggs if disturbed during daylight. Best course of action is to enjoy observing the owls in the evening but do not intrude.

**fig4** Nest container made from a large-size enclosed cat litter box readily obtainable in any pet store. This one has a plywood sunshade mounted with 1" pieces of water hose as standoffs thorough which eyebolts will be used to anchor box in tree or building. A wood front and landing board have been provided, as well as drain holes. There is a factory-made ventilation opening in the top, as well as latches that hold the bottom and top together. The nesting material (bark) can be readily cleaned out by unlatching the bottom, but this should be an infrequent operation best conducted after the nesting season in late fall and early winter. Barn owls can nest any month of the year in California and use the nest boxes for shelter when they are not raising young. If you can avoid sitting nest container in the full sun do so. The full heat of the summer's sun may force barn owls to abandon a nest.

**fig 5** This is the nest box design described in *Using Barn Owls for Rodent Control*, on a 4 x 4 inch post set 4 feet into the ground with 12 feet elevation. This design has landing dowels inside and outside the box, a sunshade top and bock, and a clean out panel. It has been successfully used in the opening California vineyards such as this, but should be placed under trees if available. Barn owls will travel several miles from nests and roosts to their hunting grounds. Off-center placement of entrance provides more protection for the owls from attack by crows, ravens, hawks and great horned owls.
**fig 6** This is a large barn owl nest box that can be cut from one sheet of 1/2-inch plywood. It is for installation inside a barn, with the 6-inch entrance hole cut through the barn's side. The nest box can be screwed into the side of the barn and into a beam if available. Its weight can also be suspended from diagonal wires fastened to the barn wall if no beam is available for the bottom to rest on. This in many ways is the ideal barn owl house if it can be placed in an area of low disturbance.

**fig 7** A barn owl house similar to the design in *Using Barn Owls for Rodent Control*. This 24-inch cube requires 1-1/2 sheets of 1/2-inch plywood and a 4-foot 2 x 4. The remaining half sheet of plywood should be used to make a top and back sunscreen if the box is sited in the sun. The sheets are joined with drywall screws, angle iron, or wood corner braces. One-inch dowels provide inside/outside perches.