



BLUEBIRDS FLY!

California Bluebird Recovery Program's newsletter

—supported by National Audubon Society-California
—an affiliate of the North American Bluebird Society

for the encouragement and conservation of cavity nesters—especially bluebirds—anywhere in the West

Annual reports flow in—more needed now

Some 70 bluebirders have sent in their annual reports, but with 336 reports for 1997, we're way behind. Now we know it's hard to get around to filling out report forms and we're no IRS, so there won't be any fines. But please have mercy on our poor compilers who'd rather not be adding the total over Thanksgiving dinner.

Enclosed is **Don Yoder's** message from the last issue. You'll see it's also the Report Form. It's on blue paper. You don't even have to tear it out. But please don't lose it.

If we haven't made you feel guilty yet, what can we do? Just think how proud you'll be when you've put your stamp on the envelope and mailed it to Don or your County Coordinator.

About the New Form

Some questions have arisen regarding the new form. How do you account for boxes that were unused? Answer: the total number of boxes should be entered in the Total column even though this will exceed the boxes reported by species. We'll know what you mean.

A "Standard" box is any rectangular box with a 1½" to 1⅞" hole. It matters not whether it opens from the top, side, or front.

If you find you didn't gather all of the information, such as number of eggs, do the best you can. We want the forms back and soon to help us have a Happy Thanksgiving.

—the Editors

CONSTRUCTION SEASON IS HERE—GET READY FOR '99

Did the woodpeckers enlarge the holes on your bluebird boxes? Did the roof split on one of them? Did raccoons raid them and now you want to put the boxes on poles or hang them from trees? Or, do you just want to expand your trail and need to build many more? Perhaps you want to build a nestbox to give to a friend. Well, now's the time to get started and that's what this issue is all about.

You might call it a "Review" issue because we repeat features you've seen before. We have **Dick Purvis's** Hanging Box and Box Lifter design, **Paul Chance's** Elevator Pole, and a design for a standard nestbox after **Larry Zeleny**, as well as the new NABS construction standards printed in the last issue.

You'll find articles on types of boxes and the various features which may benefit our cavity nesters.

DON YODER URGES EARLY PLACEMENT OF NESTBOXES

Our program director, **Don Yoder** sent this message for our Fall issue. It's always well to heed our director's advice:

"We continue to emphasize—but sometimes don't succeed in practicing—the importance of getting nestboxes placed and made available early in the season. Early January and February—even December—can be houselooking time for some species. When the migrating birds reach your area is probably too late for you to start thinking about putting out boxes if you want to attract early arrivals. Your particular climate, weather, and yes, even altitude can be influential in box picking time. Males probably want to poke around and make some selections before the females show up. But if he can't do his work because there are no choices available, it could be a poor reproductive year for all concerned."

Rescue bluebirder thwarts Acorn Woodpeckers with bulletproof "glass"

Fully aware of **Garth Harwood's** appeal for diversity in our last issue, **Bill Singley** of Rescue, in El Dorado County still figures the Acorn Woodpeckers have plenty of oak trees for nesting and, moreover, unlike the blues, can make their own cavities. So when the woodpeckers began to enlarge holes in his bluebird boxes he took action. After all, the woodpeckers weren't even trying to nest in them. Mostly they were using them to store acorns or to occasionally roost at night.

Bill called his local plastics supplier and was able to get 3"x3"x1/8" squares of polycarbonate plastic with precise 1/16" holes drilled in them and four small holes in the corners for screwing them in place.

He hasn't had any woodpecker damage since.

CHANCE'S ELEVATOR POLE WITH STANDARD NESTBOX

modified by H. Graham

Bill of Material:

- 1ea 5' section 1/2" EMT (conduit) pipe
- 1ea 4 1/2' section 3/4" EMT pipe
- 1ea 16d nail (locking device)
- 1ea standard side-opening nestbox (NABS after Zeleny) with back extension removed
- 2ea 2 1/2"x1/4" carriage bolts with nuts & washers
- 2ea 12" pieces of black tie wire (baling wire)

Instructions:

1. Affix 1/2" pipe to back of nestbox with the 2 carriage bolts (predrill 1/4" holes in pipe and box)
2. With 1/2" pipe inserted about 2 3/4" into 3/4" pipe, drill holes through both pipes with 3/8" bit
3. Firmly attach 3/4" pipe to fencepost (wooden or studded-T) with wire
4. Orient holes in proper direction (away from prevailing storms)
5. Lock two pipes together with 16d nail
6. Mark pipes with marking pen to easily locate matching holes

To Operate:

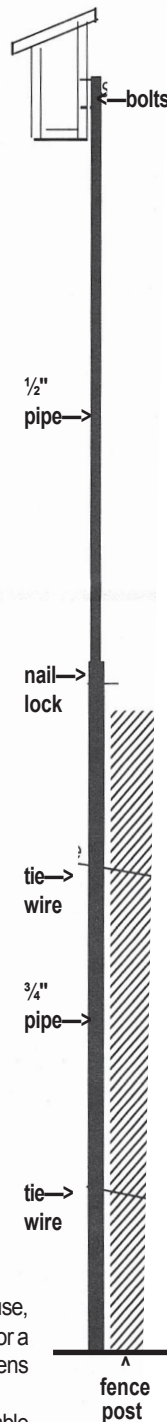
1. Remove locking nail
2. Slide upper pipe down into lower pipe
3. Open side-opening box, inspect nest, eggs, and chicks
4. Close box; record observations
5. Raise upper pipe and box until marks are visible
6. Lock pipes in place with nail

Comments:

Few cavity-nesters are bothered by the raising and lowering. Bluebird, titmouse, and swallow hens take the ride up and down, often after being lifted off the eggs for a count or even after being banded and replaced on the clutch. Flycatchers and wrens usually leave the nest as it is approached in any case.

The advantage of this system is to gain the height above predators and still be able to easily monitor. Therefore the side-opening box is preferred because it will be at eye-level when lowered. A top-opening box is normally too high for this application.

Owing to the support of the lower pipe and the "splice" in the middle, the 1/2" pipe is quite sturdy. Several have survived 90mph winds in exposed places. While raccoons are known to climb 3/4" poles, the 1/2" pipe, when graphited, is a formidable obstacle.



California Bluebird Recovery Program

Founded in 1994, supported by National Audubon Society-California and affiliated with the North American Bluebird Society, CBRP is "for the encouragement and conservation of cavity nesters—especially bluebirds—anywhere in the West."

CBRP is non-profit, has no paid staff, and is supported entirely by the efforts of volunteers and donations accepted by the Mt. Diablo Audubon Society on CBRP's behalf.

CBRP members had located and reported on 3,600 nestboxes by the end of 1997, with more than 8,000 cavity nesters fledged—nearly 5,400 of them western and mountain bluebirds.

CBRP welcomes membership from the public who wish to support its program, and especially seeks those who will place appropriate nestboxes in the proper habitat, faithfully monitor the birds' progress through the nesting season, and report yearly on the results.

CBRP can furnish nestbox plans, a monitoring guide, forms for monitoring and reports, technical advice through a network of county coordinators, and sometimes the nestboxes themselves.

Membership, which includes this quarterly newsletter, is available for a donation of \$5 or more made payable to "MDAS—Bluebirds" and mailed to CBRP, 2021 Ptarmigan Dr #1, Walnut Creek, CA 94595. Donations are tax-deductible.

California Bluebird Recovery Program

Don Yoder,

Program Director
2021 Ptarmigan Dr. #1
Walnut Creek, 94595
(925) 937-5974 vox & fax
cbrp@designlink.com

BLUEBIRDS FLY!
Hatch & Judy Graham,

Editors
PO Box 39
Somerset, CA 95684
(530) 621-1833 vox
(530) 621-3939 fax
jalapep@innercite.com

What kind of nestbox should you build or buy?

Nestbox Design

One of our members has asked for thoughts on use of top-opening boxes vs side- or front-openers. Both types are in widespread use and have enthusiastic advocates. The bird doesn't care so it boils down to the monitor's preference and convenience.

Natural cavities develop at any elevation so a bird will delight in finding a box at any height if it meets his minimum needs. Most boxes are hung for the convenience of the monitor: anywhere between waist and head height affords easy inspection while standing on *terra firma*. But for protection of the birds some will choose a higher location which may require a ladder for each inspection. Other equally avid and

—by Don Yoder

successful monitors use elevator poles or box lifters to raise boxes for the safety of the occupants.

We digress. Here are considerations on box openings and some advantages and disadvantages.

Top Openers

Two considerations in top opening boxes are leakage of rainwater and secure closure. The back of the top should fit under a cleat, have a rubber hinge or some other method to prevent water from seeping into the nest.

The top can be held shut by a screw, a latch or a wire bail over the top with the ends inserted into the sides of the box. And box builders will have numerous other methods of lid attachment. Tell us how you do it on your boxes.

I believe that opening the top of a box is less likely to flush the female off of her eggs and so disturb her concentration than opening from the side. I need more than average light inside the box, so, personally, I use a flashlight. It fixes the bird's attention.

I find this especially true of bluebirds and you will enjoy having a beady black eye staring up at you while she stays quietly in place. It's another matter for titmice, however; opening the box often triggers a hissing, spitting, threatened attack, calculated to deter any intruder. This alone makes it fun to find these

—continued page 8

Support our sponsors



The **North American Bluebird Society** (NABS) is a non-profit organization determined to increase the populations of Eastern Bluebirds, Western Bluebirds, and Mountain Bluebirds on this continent.

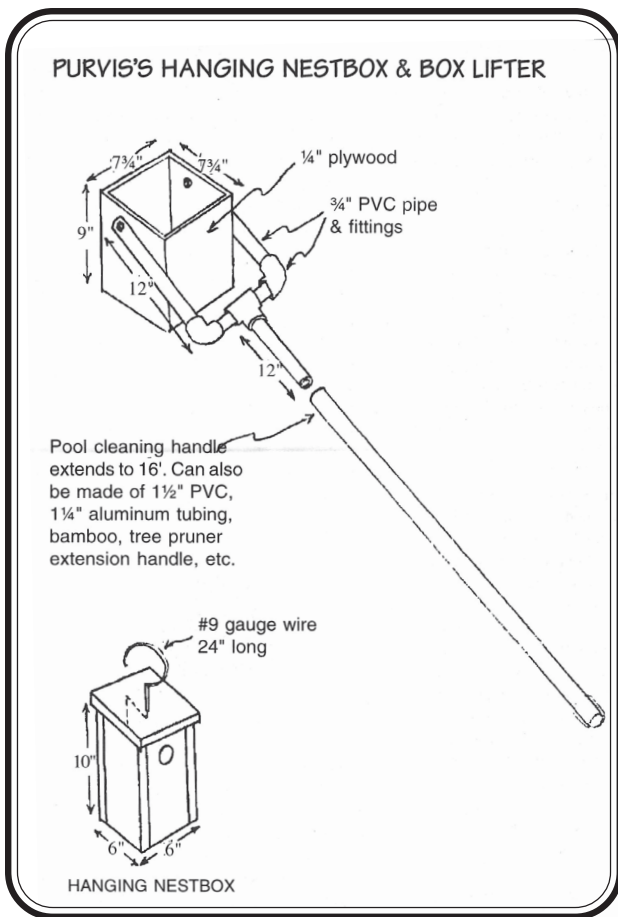
NABS studies obstacles impeding bluebird recovery, publishes results of studies, and encourages participation by its membership in all facets of its programs. Through its quarterly journal, *Sialia*, the Society addresses such issues as improved nestbox design, control of competitors and predators, and enhanced techniques for increasing winter food supply. Membership is \$15. NABS's mailing address is PO Box 74, Darlington, WI 53530.

National Audubon Society



There are local chapters of the **National Audubon Society** (NAS) in all fifty states, Guam, and Latin America. In California there are over fifty local chapters. Chapters have newsletters, monthly programs, and field trips to local areas of interest.

To join NAS, contact your local Audubon Chapter, or call NAS-California at (916) 481-5332. National dues are \$20 for new members, and include a bimonthly magazine as well as membership privileges in your local Audubon chapter.



STANDARD NESTBOX DESIGN FOR WESTERN BLUEBIRDS

based on an original NABS design developed by Larry Zeleny

Bill of Materials:

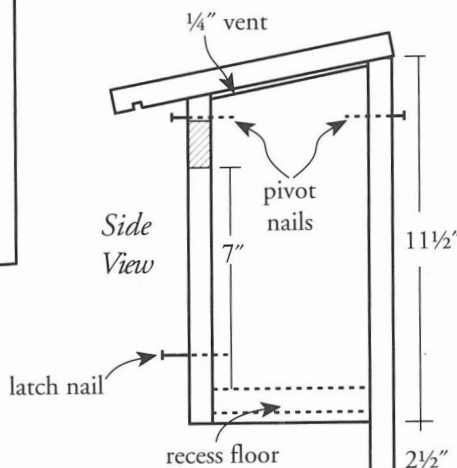
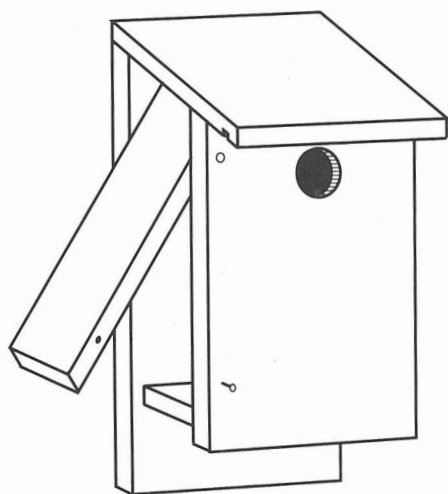
- 1 pc 1"x 8"x 6' board (cedar or redwood preferred)
- 1½" deck screws or 6d galvanized nails
- 1 scrap of 5/8" or ¾" plywood 9"x 9" square (roof)

Equipment Needed:

- drill with 1½" bit and 3/32" bit (for predrilling)
- table saw or rotary saw
- screwdriver and hammer
- round wood rasp

Instructions:

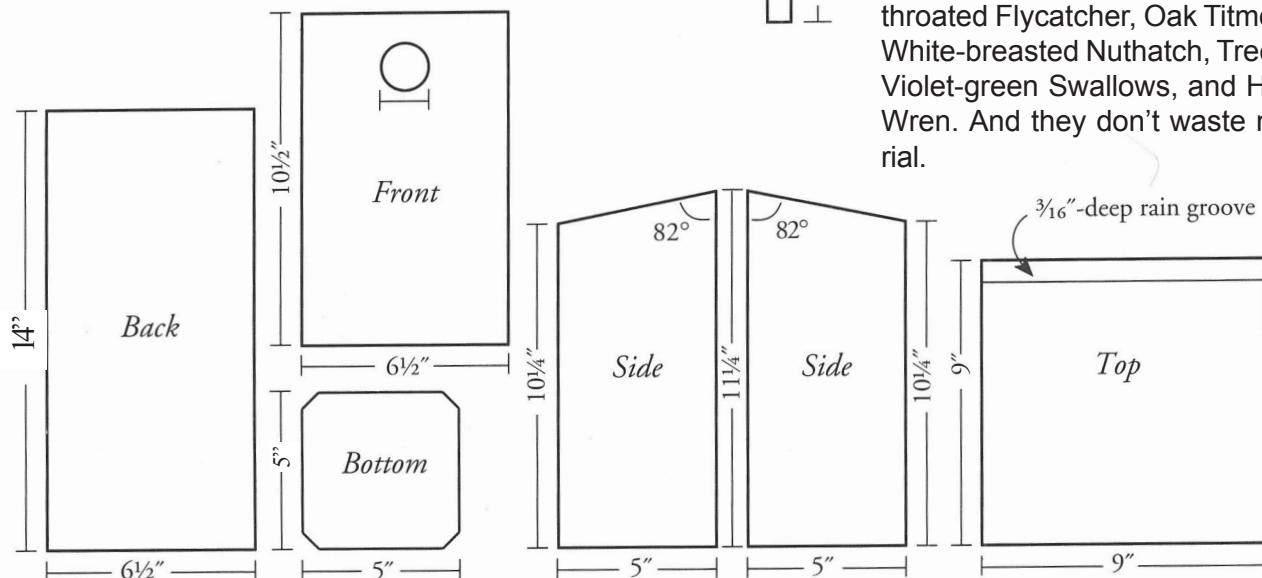
1. Cut board at 24¾" for front and back
2. Rip width to 6½"
3. Cut remainder at 29" for 2 sides and bottom
4. Rip width to 5"
5. Cut front and back into lengths shown below
6. Cut bottom off at 5"; remove corners for drain
7. Cut 2 sides at 82° (or from 10¼" to 11¼")
8. Drill entry hole with 1½" bit
9. Enlarge hole to 1⅞" with wood rasp
10. Predrill holes for screws or nails
11. Score front of roof for drip groove
12. Assemble



Comments:

A suitable box may be constructed from a 1"x 6"x 6' redwood fence board. Since the nominal sizing is scant, the actual dimensions of the floor will be 4"x 5½"; the front, back, and sides will be 5½" —requiring no trim. A larger plywood roof will still be required to provide adequate overhang. Many recommend a 5" overhang in the front.

While this is slightly smaller than the NABS recommended size, such boxes have proven to be very successful for Western Bluebird, Ash-throated Flycatcher, Oak Titmouse, White-breasted Nuthatch, Tree and Violet-green Swallows, and House Wren. And they don't waste material.



NORTH AMERICAN BLUEBIRD SOCIETY NESTBOX CONSTRUCTION STANDARDS

In a move to end the proliferation of substandard nestboxes that are detrimental to the health of cavity nesters, NABS has adopted standards for the use of commercial suppliers of nestboxes. CBRP applauds the effort which will improve the chances for birds to survive. Although there can be variations and departures from these standards, their use will greatly improve the chances for successful fledging. Eastern and Western Bluebird standards vary somewhat. We have only included the NABS standards for Western and Mountain Bluebirds here.

Materials:

- 3/4" wooden boards or PVC pipe with attachable wooden roofs are commonly used for bluebird boxes
- Peterson boxes often use 2"x4" boards
- do not use pressure treated wood because it contains toxic compounds
- paper milk carton style or corrugated cardboard boxes are unacceptable
- woods such as redwood and cedar are long-lasting even when left unpainted

Entry holes:

- Western and Mountain Bluebirds use 1⁹/₁₆" round openings

Floor sizes:

- Western and Mountain Bluebird nestbox floors should be at least 5"x 5" or 5½"x 5½" to accommodate larger clutch size

Access:

- it is imperative that all bluebird nestboxes open readily from the top, side, or front to facilitate box monitoring and cleaning
- if the box's side or front pivots to allow access to the box, it should do so at as high a point as possible to ensure that the door does not obscure tall nests from being observed
- a screw, or a nail angled in a predrilled hole, should secure the door to ensure that mammalian predators can not readily open the nestbox

Colors:

- natural wood is acceptable
- if painted or stained, use light colors to minimize overheating during warm weather in locations where this is likely

Water-resistance/drainage:

- drainage holes must be provided in the box bottom to allow any rain entering the box to drain out and to provide air circulation to keep nesting material dry
- the box should be water-tight
- the roof should provide sufficient overhang beyond the box entry and vent holes to minimize possibility of rain entering these openings
- the roof should cover the top edge of the box back unless other features eliminate any possibility of rain entering the joint between the back and roof even if the wood warps

Heat/cold protection:

- vents providing cross ventilation should be present near the box peak. These openings should be protected from rain by having the box roof overhang enough to keep the rain out
- dark colors should be avoided to minimize overheating
- it should be possible to plug or cover vent holes during cold weather periods early in the nesting season
- long roof overhangs minimize the possibility of letting sun, rain, or snow enter the box

—continued over

NORTH AMERICAN BLUEBIRD SOCIETY NESTBOX CONSTRUCTION STANDARDS

(CONTINUED)

Predator deterrence:

- the box should be easy to mount on a predator-resistant post in areas with raccoons or cats
- a 5" roof overhang above the entry hole reduces the possibility of raccoon or cat predation
- wooden guards placed over the entry hole are **not** effective in eliminating raccoon predation; very deep tunnel-like predator guards **deter** bluebird use
- boxes mounted on heavily greased pipes or on waxed electrical metal tubing (conduit) will deter many climbing predators
- mounting boxes less than 5' from the ground increases the opportunities for climbing or jumping predators to raid the nest
- wooden posts, ungreased pipes, PVC pipes are readily climbed by predators such as raccoons

Mounting:

- boxes should be designed so that they may be readily and securely mounted to a support post such as a water pipe or electrical conduit
- fenceposts are acceptable mounts in areas where raccoons are rare
- a back extension above or below the main box body is convenient for attaching the box with screws, nails, wires, pipe clamps, or U-bolts

Perches:

- perches should **never** be used on any bluebird boxes because they aren't needed by bluebirds and only facilitate harassment by non-native species such as House Sparrows

Inner walls:

- interior wall should **not** be painted or stained
- the front wall below the entry hole should feature a rough surface to facilitate chicks climbing to the entry hole for fledging

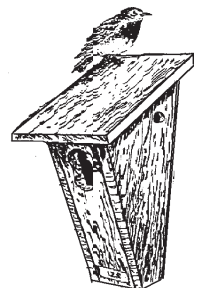
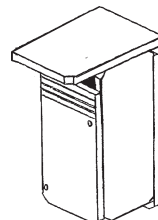
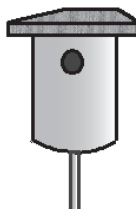
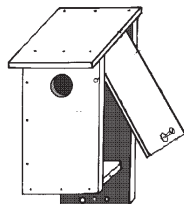
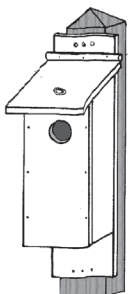
Parasite control:

- nestboxes with a raised screen floor may reduce blowfly infestation but this has not been conclusively proven
- rotenone should **never** be applied to the interior of nestboxes as it is counter-productive in controlling blowflies

Extracted from NABS Nestbox Specifications (1/5/98). For further information contact:

North American Bluebird Society, PO Box 74, Darlington, WI 53530

e-mail: nabluebird@aol.com Website: <http://www.cobleskill.edu/nabs/> Fax: (608) 329-7057



These coordinators are ready to help you—

Alameda County
Ann Kositsky
1090 Miller Avenue
Berkeley, CA 94708
(510) 527-5091
ajpa@pacbell.net

Raymond A. Fontaine
P.O. Box 92
Livermore, CA 94551
(510) 447-0213

Amador County
Penny Brown
20624 Parkside Drive
Pine Grove, CA 95665
(209) 296-3849
penny@cdepot.net

Butte County
Emily Harbison,
Butte College Farm
3536 Butte Campus Dr.
Oroville, CA 95965
(530) 895-2449
deb@cin.butte.cc.ca

Calaveras County
La Verne Hagel
466 Thompson Lane
Copperopolis, CA 95228
(209) 785-2363

Contra Costa County
Shirley & Warren Engstrom
232 Tharp Drive
Moraga, CA 94556
(925) 376-4695
wlese@juno.com

Oscar Enstrom
21 Manti Terrace
Danville, CA 94526
(925) 837-8392

El Dorado & Amador Cos.
Hatch Graham
P.O. Box 39
Somerset, CA 95684
(530) 621-1833
(530) 621-3939 fax
jalapep@innercite.com

Viola Sampert,
Trail Coordinator-Geo'town
5655 Hollow Lane
Greenwood, CA 95635
(530) 333-0318

Jim or Martha Fletcher,
Trail Coordinators
3731 Leisure Lane
Placerville, CA 95667
(530) 644-4895

Kern County
John Boice
P.O. Box 126
Bodfish, CA 93205
(619) 379-8295

Lake County
Jeannette Knight
8155 Sulphur Creek Road
Cobb, CA 95426
(707) 928-5250

Lassen County
Edward Bertotti
470 413 Wingfield
Susanville, CA 96130
(530) 257-3774

Mike Magnuson
Almanor Ranger District
PO Box 767
Chester, CA 96020
(530) 258-2141

Tom Rickman
P.O. Box 2017
Susanville, CA 96130
(530) 257-2151

Los Angeles County
Doug Martin
13066 Shenley Street
Sylmar, CA 91342
(818) 367-8967

Madera County
William Rihn
P.O. Box 1648
Coarsegold, CA 93614
(209) 683-3052

Marin County
Ruth Beckner
15 Portola Avenue
San Rafael, CA 94903
(415) 479-9542

Meryl Sundove
37 Greenwood Beach Rd.
Tiburon, CA 94920
(415) 388-2524
(415) 388-0717 Fax

Mariposa County
Lawrence Punte
9443 Banderilla Drive
LaGrange, CA 95329
(209) 852-2559

Modoc County
Charles Welch
P.O.Box 683
Alturas, CA 96101
(530) 233-4534

Napa & Sonoma Counties
David Graves
1500 Los Carneros Avenue
Napa, CA 94559
(707) 257-0843

Nevada County
Lorry Hukill
15954 Wolf Mountain Rd.
Grass Valley, CA 95949
(530) 477-7165

Richard Nickel
107 Bawden Ave
Grass Valley, CA 95945
(530) 273-2600

Orange County
Dick Purvis
936 S. Siet Place
Anaheim, CA 92806
(714) 776-8878
Dickersly@aol.com

Placer County
Les Chan
9720 Oak Leaf Way
Granite Bay, CA 95746
(916) 791-4529
habitat@jps.net

Plumas County
Patricia Johnson
Almanor Ranger Station
P.O. Box 767
Chester, CA 96020
(530) 258-2141

San Bernardino
Glen Chappell
1923 Abbie Way
Upland, CA 91784
(909) 981-1996
Chappell@CHS.Chaffey.K12.CA.US

San Diego County
Rosemary Fey
Box 1245
Borrego Springs, CA 92004
(619) 767-5810

San Francisco County
Don Wolff
1376 6th Avenue
San Francisco, CA 94122
(415) 665-6938

San Joaquin County
Thomas C. Hoffman
10122 E. Woodbridge Rd.
Acampo, CA 95220
(209) 369-8578
thoffman@lodinet.com

James A. Guthrie
806 S. Orange Avenue
Lodi, CA 95240-4636
(209) 369-6522

San Luis Obispo County
Allan V. Naydol
481 N. Las Flores
Nipomo, CA 93444
(805) 734-8232 x69687

San Mateo County
Howard Rathlesberger
230 Ridgeway
Woodside, CA 94062
(415) 267-1296

Santa Clara County
Garth Harwood,
Santa Clara Valley A.S.
22221 McClellan Road
Cupertino, CA 95014
(408) 252-3747
garth@scvas.org

Santa Cruz
Nanda Currant
530 Amigo Road
Soquel, CA 95073
(408) 462-3703
hearth@cruzio.com

Siskiyou County
Mike Hauptman
PO Box 92
Yreka, CA 96097
(530) 841-1669
(530) 842-4332 Fax
writeidea@snowcrest.net

Sonoma County
(see Napa & Sonoma)

Sutter & Yuba Counties
Kevin A. Putman
2884 Coy Drive
Yuba City, CA 95993
(530) 755-1480
dputman@syix.com

Tehama County
Pete Flower
331 Oak Street
Red Bluff, CA 96080
(530) 527-0392

Tulare County
Peter C. Morrison, M.D.
325 So. Willis
Visalia, CA 93291
(209) 733-1154

BIRD BANDERS:

Amador & southern El Dorado
Hatch Graham
(530) 621-1833
jalapep@innercite.com

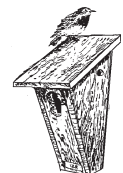
Northern El Dorado
Dave Delongchamp
(530) 333-2304

Mendocino & Lake
Malcolm King
(707) 462-3277
kingfarm@zapcom.net

Nevada County
Craig Ferrari
(530) 268-1661
ferrarifarms@yahoo.com

Placer & northern Sacramento
Dee Warenycia
(916) 786-5056
warbler5@aol.com

Sutter & Yuba
Kevin Putman
(530) 755-1480
dputman@syix.com



NABS CONSTRUCTION STANDARDS—A MILD DISSENT

—by Hatch Graham

I applaud the motives behind the NABS construction standards which should help keep substandard nest-box models off the market.

Many experts across the country were consulted in the development of the standards.

My quarrel is with the specification of the floor size for Western Bluebirds being set at 5"x5" to 5½"x5½". For many years, Westerns have used the old 4"x4" boxes designed for their Eastern cousins with great success. And, while exposing themselves to risks from jays, magpies, and other avian predators, the Western blues still seem to prefer the Peterson box with its 3"x3½" floor.

Moreover, in the 5-year study by U Nevada-Reno and US Forest Service on the San Joaquin Experimental Range in Merced Co. with Ash-

What kind of nestbox?

—continued from page 3
little guys as residents.

Thorough cleaning of a top opening box usually requires lid removal and detachment of the box from its mounting post. But entire removal gives an opportunity to check for wires digging into tree trunks.

Side & Front Openers

These may have the pivot point at top or bottom. Such openings are convenient for cleaning either

throated Flycatcher, Oak Titmouse, House Wren, and Western Bluebird, the researchers reported *no significant relationships were found between clutch size and bottom area or volume of cavities.*

The nestboxes were increased from 44 to 92 and compared yearly with all natural cavities occurring in the area. (*The Auk* 114(4), 1997.)

I believe concern over floor size is unfounded.

Standard or Peterson boxes; and, as is often the case, if a hen starts a second nest before you have cleaned the old one out, you can simply remove the old nest by pulling it out from under the new one. Top pivots may obscure viewing at the top of high nests such as the House Wren's.

With either type, the monitor views the nest at eye level and right in the bird's face, rather than from a superior position with a top opener. It seems to me, this may be more disturbing to the bird and cause more frequent departures from the box. And, depending on the box height, may require depressing the side of the nest or use of a mirror to look for eggs or young. How disturbing this may prove to the adult bird, present or not, is not really known.

Which design is better? Add your comments to what we have offered here. Our mail box is large and ready to receive all such comments.

Your subscription is a benefit of membership. Membership is available for as little as \$5 per year but more is greatly appreciated. We send the newsletter to many cooperators but we need paid members to keep printing. The year and month of your membership expiration is shown in the upper right side of your label, e.g., 199906=June 1999.

BLUEBIRDS FLY!
California Bluebird Recovery Program's
Newsletter
Vol 4 No 3 Autumn 1998

Please send correspondence to address on page 2

a service of
National Audubon Society-California
555 Audubon Place
Sacramento, CA 95825

Nonprofit Org.
U.S. Postage
PAID
Sacramento, CA
Permit 910