

Future of the Condor *recovery or extinction?*



by Sanford R. Wilbur

THE ADULT CONDOR lay on the grassy ledge, neck bent over its shoulder, preening its back. Although it was only 4:30 on this warm March afternoon, the wind had dropped, the midday thermals had disappeared, and the soaring day was over. It was time for a rest.

But the young bird nearby wanted no part of that. Approximately ten months old and just learning to get around by itself, this youngster had no intention of

going to bed at 4:30. It wandered up and down the grassy ledge, pulling at grass, picking up sticks and rocks, seemingly looking for some kind of action. Not finding any, it returned to the dozing parent's side and pecked lightly at the bare orange neck. The adult lunged halfheartedly at the youngster, and it retreated a moment, then came back and tried another little peck. Same reaction! Here apparently was the fun it had been looking for, and like a mischievous child, it returned time after time to nip at that tempting neck.

After ten minutes the adult obviously tired of its troublesome offspring's

behavior. It abruptly flew off, circled once around the ledge, then landed at one of two prominently "whitewashed" pinnacles. The caked excrement showed that condors regularly used those two perches. The youngster, left alone, also took off and circled the rock. Still apparently not ready for bed, it landed at the mouth of the whitewashed cave where it had hatched ten months earlier, looked around there a bit, then flew to a grassy spot not far from the now dozing adult. In one last attempt to prolong the day, the young bird flung itself at the same small pinnacle on which the parent slept, almost knocking both from the perch. But the adult was not to be moved, so the young bird ►

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The California condor (*Gymnogyps californianus*) today nests in only a small section of southern California, although as recently as 1855 it nested in Shasta County, in northern California, and three decades earlier was common in Oregon. It has the largest wingspread of any North American land bird, one specimen measuring out to 9 feet 7 inches. The average adult weighs about 20 pounds. The turkey (*Meleagris gallopavo*) often weighs considerably more, but has a much shorter wingspread. The Andean condor (*Vultur gryphus*), of South America, has a slightly greater wingspread (about 2 inches wider) and averages about 1 pound heavier.

California condors usually do not breed before the age of six. Ordinarily one egg is laid every two years. The average life span is about twelve years. Under normal circumstances, then, one bird may produce about three young in its lifetime. The preferred food is beef (freshly killed); sheep, ground squirrel, deer, horse, and coyote are also favored. The birds may range as far as 25 to 30 miles from the nesting site in a single day in their search for food. There is no evidence that the California condor ever attacks living mammals. The species has but one natural enemy: man.—Ed.

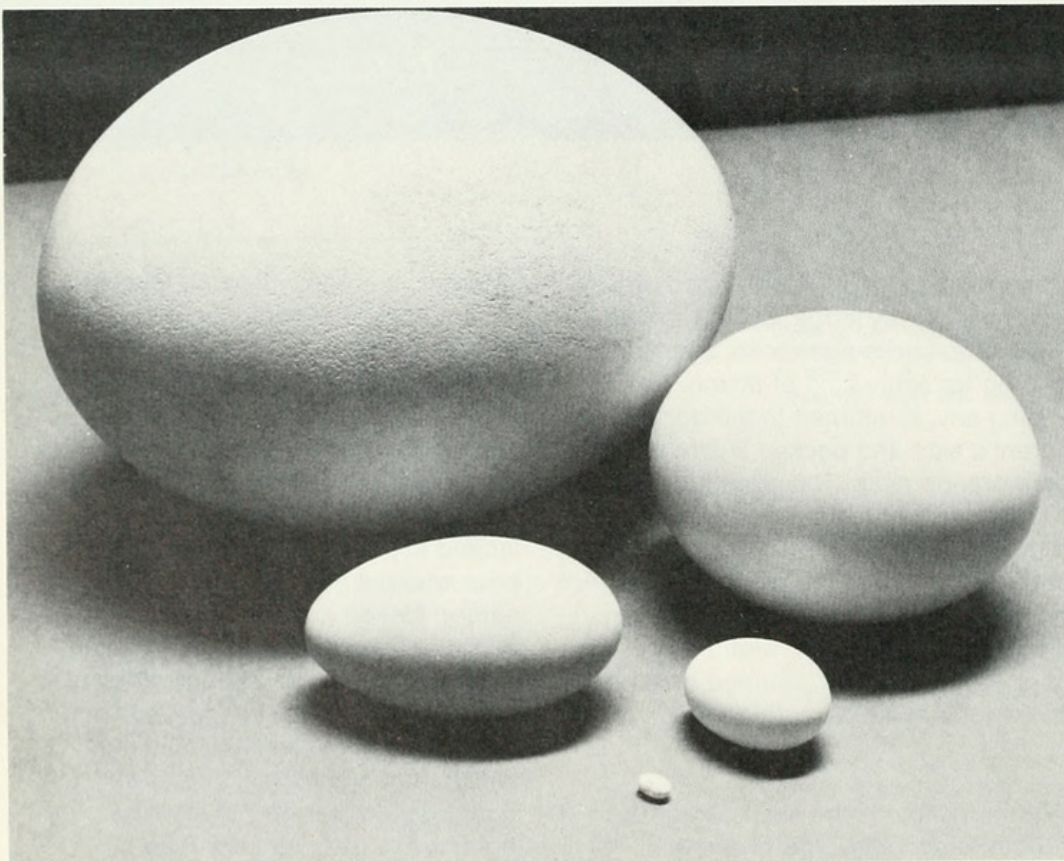
hopped to the next pinnacle, tucked its head under his wing, and went to sleep.

We untucked ourselves from under the bush where we had crouched for the past four hours, and made our way back down the hill to camp. Two and one-half days of sun, poison oak, bugs, and silent watching had paid off this time.

THE young California condor that U. S. Forest Service biologist Dean Carrier and I watched that March afternoon did not realize its uniqueness. The only condor known to have hatched in 1969, it is one of only about eleven reared from 1968 through 1973. No matter how we evaluate this and other condor-related facts, it is an almost inescapable conclusion that the condors simply are not producing enough young to sustain their population. The problem is especially complicated because it isn't a matter of eggs failing to hatch, or young birds failing to reach maturity. It's entirely a case of most adult condors failing to nest.

After I had discussed this situation at a recent meeting, a waggish newsman wrote that condor reproduction had declined because the old birds have lost their interest in sex! He was being facetious, of course, but in a much oversimplified way he was partially correct. A combination of changes in condor habitat has apparently affected basic condor biology to make the birds less inclined to nest.

We don't completely understand these changes, but studies of various birds and other animals suggest that certain activities will occur only if the animals receive necessary stimulation. If such a stimulus, or "releaser," fails to function normally, expected behavior will not occur. For instance, a pair of condors not in close contact with other pairs of condors (social releasers, in this case) may not be stimulated to begin courtship. Condors with an undependable food supply might not be "released" to begin nesting. Perhaps condors short of food forage far from traditional nest sites. Their drive to mate



Egg of the California condor (third largest), shown with eggs of other bird species (smallest to largest): ruby-throated hummingbird (*Arreoloxus colubria*), chicken, condor, ostrich (*Struthio camelus*), and Aepyornis, or elephant bird (plaster cast)—an extinct form.



Remarkable early photo, taken in color, by William L. Finley in 1906 or 1907. A pet of Finley's, the condor appears here in juvenile plumage, in a typical "sunning" pose.

and nest may fail to be "released" because of insufficient stimulation by the characteristics of the nest site itself.

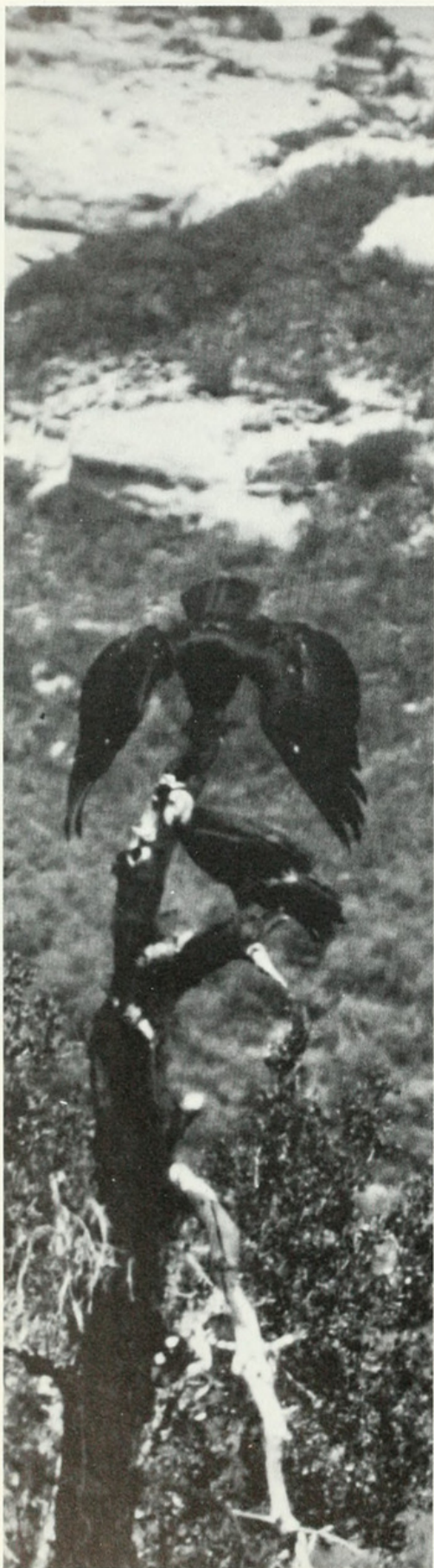
Possibly two releasers (if the concept applies to condors)—food supply and nest site—are currently malfunctioning. Food near nesting areas has been scarce in recent years, and, at least partially in response to this scarcity, some condors have been displaced into less suitable nesting habitat. Food shortage is probably also combining with a normal social dominance ("peck order") within the condor population, so

that the more aggressive, established birds keep lower-order condors from utilizing the limited food supply that does exist.

We are attempting to solve the problem of food shortage in critical places by a supplemental feeding program. Each week throughout the year, we place animal carcasses (the natural food of condors) at protected sites within the normal feeding range of the nesting birds. Two or more sites are used simultaneously so the birds will not have to rely on only one location for all their

food (like garbage-can bears), and so condors lower on the peck order can feed on carcasses not being used by the more dominant birds at favored sites. We hope this will lead to more nesting, more successful nests, and a reestablishment of now partially broken traditional ties with the nesting areas.

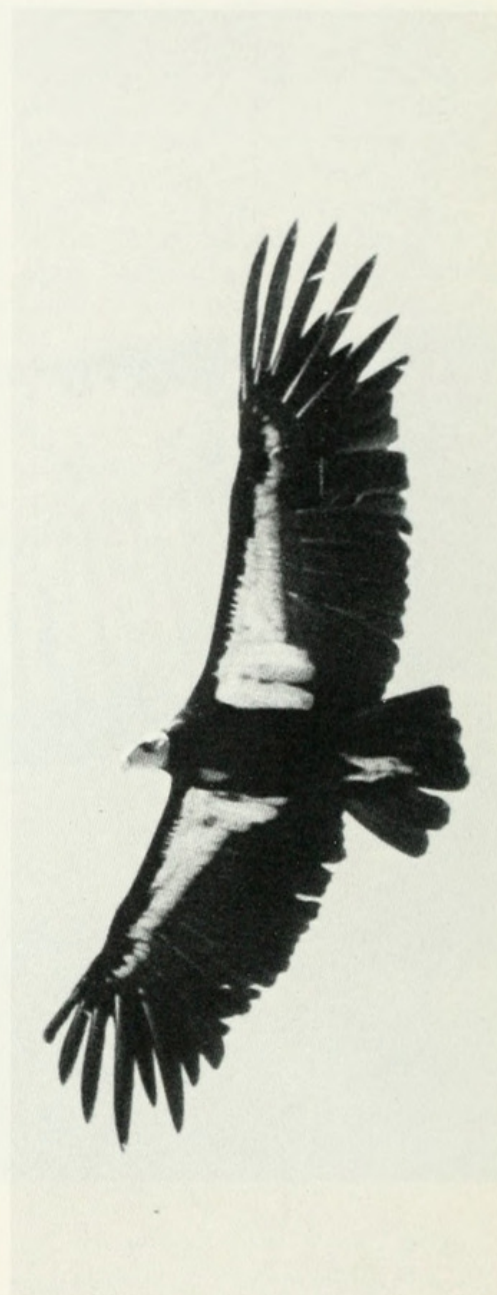
Supplemental feeding is only one of a number of protection and management measures, either in effect or being planned, to improve the status of the California condor population. A number of interested organizations including the ►



U. S. Fish and Wildlife Service, U. S. Forest Service, National Audubon Society, California Department of Fish and Game, University of California, and U. S. Bureau of Land Management, are currently preparing and implementing a comprehensive "condor recovery plan." This document outlines all actions believed necessary to return this species to a more secure status, and provides an orderly timetable and priority list for getting the necessary jobs done. Three basic groups of needs—protecting the fifty to sixty condors remaining, increasing their reproductive rate, and preserving enough living space for a secure population—are proposed or are being satisfied through an integrated program of land acquisition, land use planning, food supply enhancement, conservation education, restrictive regulations, law enforcement, and continued basic research into the needs of the species. All the organizations listed above, plus other interested individuals and groups, are actively involved in implementing these actions.

Can we save the condors? At this point, we honestly don't know. We appear to have made great strides in slowing the decline of the species, but right now I believe the condor population is at its lowest and most critical point. The success or failure of our "recovery plan" may be evident within as short a time as five to ten years. It is vital that we get the entire plan operational in the shortest time possible. Equally important is the need to continue to look for other ways to protect and preserve the condor. Even as we implement our current plan, we are attempting to formulate emergency action to be taken should the population continue its decline. The job is far from finished.

Next morning Dean and I were both crouched under our bush at 7:30, just in time to see the first signs of stirring at the condor roost. A 10 o'clock, after



two and one-half hours of waking up by our subjects, condor style—preening, sunning, moving from perch to perch—we saw adult and immature drift out of sight to the north. The young bird flew erratically compared to the parent bird, but it was well on its way to independence. Only if it survived the next five or more years, however, would it begin to share in perpetuating its species because the birds require at least five years to reach maturity. We know it will take much special effort by many people if this bird and the rest of the condors are to make it through. □



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