FERAL EXOTIC BIRDS IN SOUTHERN CALIFORNIA

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Southern California from the Pacific Ocean coastline to the base of the major mountain ranges, northward to Santa Barbara, southward to San Diego, and eastward to the Salton Sea near the western edge of the Colorado Desert has a year-round mild climate and an abundant exotic arboreal flora. There is also a large human population. These factors encourage aviculture; exotic birds of tropical origin are imported by the thousands annually; zoos are plentiful, pet shops possibly as common as anywhere in the world, and private aviculture, especially among members of the large leisure class, an elaborate avocation. The climate allows tropical species to live in outdoor situations throughout the year. The exotic trees include many fruiting forms that together with native species sustain feral, especially frugivorous, birds when they escape or are accidentally released.

This summary report considers species which have not reached California by natural immigration, thus excluding the House Sparrow (*Passer domesticus*) and the Starling (*Sturnus vulgaris*) and those which have been introduced as game birds, thus excluding the Chukar Partridge (*Alectoris chukar*) and the Ring-necked Pheasant (*Phasianus colchicus*). The paper also excludes comment on numerous scattered reports of individuals of many species and of occasional observations of two individuals together not observed more than once. The report mainly concerns present status of the species in question, but where reasonably good evidence exists a brief account is made of the history of certain species.

THE PROBLEM OF EXOTIC BIRDS IN SOUTHERN CALIFORNIA

The major problems potential in introduced species of birds in this area are common to all areas where escapees can survive and thrive: the birds may prove to be agricultural pests, they may carry disease transmissible to human beings or to other avian species, and they may prove harmfully competitive to native forms either as regards food or nesting space. Fortunately at this time, no exotic feral species appears to be operating seriously in any of the above ways in southern California. The epidemic of Newcastle Disease in poultry could conceivably have been brought about through feral exotic birds as the vector, but the evidence for this is still limited. The Riverside Newcastle Disease Headquarters unpublished report of 2 February 1973 gives the following positive Newcastle isolations from pet trade birds in California: Budgerigar (*Melopsittacus undulatus*) 6; Cockateils (*Nymphicus hollandicus*) 5; Orange-fronted Parakeet (*Aratinga canicularis*) 1; Canary-winged Parakeet (*Brotogeris versicolurus*) 1; and Finsch's Parakeet (*Aratinga finschi*) 1. In wild birds, one House Sparrow, out of a sample of 1800, and one Common Crow (*Corvus brachyrhynchos*) have been positive. No careful studies have been conducted on any exotic bird species in southern California; hence the limited nature of this report. Such in-depth studies are highly desirable, and it is hoped that in the near future they will be conducted.

The evolutionist and ecologist both could find rich problems for study here, since the firmly established exotics constitute populations isolated from the parental ones under peculiar environmental circumstances. The Chinese Spotted Dove (*Streptopelia chinensis*) and the Cardinal (*Cardinalis cardinalis*) might prove especially worthwhile subjects for such study.

SPECIES ACCOUNT

Common Peafowl (*Pavo cristatus*).—This species, native to India, is widely kept as a decorative bird in botanic gardens, zoos, and on private estates. In the area of Palos Verdes Estates, Rolling Hills, and Portuguese Bend there is a feral population of an estimated 20 to 30 adults (Richard Bradley, pers. comm.) plus an undetermined number of sub-adult birds. These have apparently wandered from or were released from captive flocks that were introduced in the 1920's (Wells, pers. comm.). There is no documentation of how long ago this may have occurred. No nests have been reported, but young recently out of the nest have been observed (Wells, pers. comm.). The above two observers report the birds to be thoroughly wild and completely independent of man for food. Wells has noted that they roost in pines.

Rock Dove (*Columba livia*).—Principal reference works dealing specifically with California ornithology (Grinnell, 1915; Willett, 1933; Grinnell and Miller, 1944) have unaccountably ignored this species. It has long been widely distributed and very common in southern California, especially around city buildings but also in suburban and rural situations. Occasionally it nests on cliffs (e.g. earthern coastal bluffs at Santa Monica), but otherwise on man-made structures. It breeds in all seasons. The population seems stable.

Chinese Spotted Dove (*Streptopelia c. chinensis*).—Common to abundant resident in coastal southern California, this species was apparently intentionally introduced, although exact documentation is lacking. According to Willett (1933), this species was first recorded in Los Angeles in 1917 and was common in much of the Los Angeles basin by 1923. By 1933 it had reached suburban areas (Santa Monica, Pasadena, Alhambra). At present its population and range appear stable and the species is known from as far north as Santa Barbara, as far south as San Diego, and inland to the Salton Sea (fide, Robert Copper, pers. observ.). Eastward its occurrence seems restricted by the deserts and the species' requirement of large trees, especially eucalyptus. In its optimal suburban habitat it seems to outnumber the Mourning Dove (*Zenaidura macroura*). There is no evidence that it competes with the latter species. Reproduction begins in early spring (February) as evidenced by increased singing and courtship. Breeding activity is prevalent from March at least through May. Willett (1933) mentions two May breeding dates—a full-grown young on 9 May and two eggs on 1 May.

Ringed Turtle Dove (*Streptopelia risoria*).—This species is common as a reproducing resident population in parks of the urban center of Los Angeles since the late 1920's (Willett, 1933) (e.g. Pershing Square, grounds of the Central Library, and trees along Olvera Street). The population, which may number several hundred birds, is apparently stable, although no careful censuses have been conducted. There are frequent observations of pairs or individuals of this dove in surrounding suburban areas and even in rural localities where birds occasionally come to feeding stations. These birds could be stragglers from the central Los Angeles population but may just as easily represent escaped or released birds from pet shops or private aviaries in which the dove is common. The reproductive season is protracted over spring and summer months, possibly at other times.

Black-hooded Parakeet (*Nandayus nenday*).—This South American species has been observed for several years in Loma Linda, San Bernardino County. State Department of Agriculture Biologist Lewis Davis confirmed their identity and found four individuals, as stated in his unpublished report dated 19 January 1973 which he has graciously allowed me to cite. Local residents reported to him that two adult birds had been released in

1968 and that they had subsequently been seen with one and then four additional birds thought to be their offspring. No further evidence of breeding of this species exists.

Canary-winged Parakeet (*Brotogeris versicolurus*).—This species is common locally and at this time confined to the Palos Verdes Peninsula and its vicinity. Several observers, including Grace Nixon and Shirley Wells (pers. comm.) have reported a flock of perhaps 30 individuals of this small South American parrot inhabiting the area of Point Fermin, on the coast in San Pedro, California. Averill Park area there is the center of another flock's known activities and Wells (pers. comm.) has indirect evidence that a gardener pruning dead fronds of a palm tree, uncovered a young bird from a nest of this species. The birds have been reported to me (Lewis R. Davis, pers. comm.) to be feeding on the fruit of the exotic trees, Avocado (*Persea americana*), Primrose Tree (*Laguneria pattersoni*) and Rusty-leaf Fig (*Ficus rubiginosus*) as well as the buds of orange trees (*Citrus*). A total of 41 was counted on the Audubon Society Christmas Census, 18 December 1972. Another flock of *B. versicolorus* numbering 10–12 birds was reported by Mrs. R. J. Seaquist from Pedley, Riverside County, California, in 1971 (Lewis Davis, pers. comm.). Seemingly this group of birds has been nearly or quite extirpated through largely unknown causes. State agricultural agents found only two birds from 10 to 12 January 1972. Both birds were shot for examination with regard to Newcastle Disease, for which they proved negative. There is no evidence of breeding at this time but the flock at Point Fermin apparently has been of stable numbers for two to three years. This species is common in pet shops in the area.

Yellow-headed Parrot (*Amazona ochrocephala*).—Locally fairly common at all seasons, this widespread neotropical parrot is found in flocks of from two or three to an estimated 30 individuals. It is clear that these birds are wide-ranging, merely from observations of individuals flying at great heights completely out of sight of an observer. Yet, it is also clear that groups of these birds can be found consistently in given areas over periods of several years. A flock varying in size from 2 to about 20 birds has for about a decade regularly inhabited the area on either side of Orange Grove Boulevard within a few square miles of the intersection of that thoroughfare with El Molino Avenue in Pasadena, California. I have personally observed some of these birds as recently as May, 1972 (flock of four). Mr. Lee Arbold noted approximately 30 Yellow-heads in fall, 1970, in Alhambra as reported by David Larsen in the *Los Angeles Times* newspaper for 6 December 1970. Larsen quotes another observer as having been aware of the parrots there for four years. According to Larsen, Mr. Arbold further observed that the birds are attracted to nut trees (sp.?). The presence of many exotic species of fruit bearing trees in the area undoubtedly is a major factor in the survival of this parrot in the Los Angeles basin. Thomas Weber (pers. comm.) notes that a flock of four regularly fed on walnuts (*Juglans regia*) in suburban Glendale in 1970 and 1971. Dr. Kenneth Stager (Larsen, op. cit.) of the Los Angeles County Museum, notes the fondness of the birds for tangerines (*Citrus*) in his backyard trees. James Johnson (pers. comm.) reports that these parrots have been noted eating oranges (*Citrus*), also, wasting the fruit to get at the seeds. They have also been seen chewing on the bark of Camphor trees (*Cinnamomum camphorum*).

There is to my knowledge no hard evidence of Yellow-headed Parrots breeding in southern California. No nest has been found. A number of persons have made observations of apparently young (green-headed) individuals in flocks, suggesting breeding. My observations indicate that crevices in the dead frond accumulations on palm trees so widely planted around the city are likely nest sites. Two adult and one subadult Yellow-head that I observed several times in spring, 1962, near Pepperdine College, south Los Angeles, climbed about on these dead frond structures and went in and out of natural crevices in

these accumulations. My studies of nesting of parrots (*Aratinga canicularis*) in captivity and in the wild (Hardy, 1963) lead me to predict that more than circumstantial evidence of the Yellow-headed Parrot breeding in California will be difficult to obtain without concerted search. Cavity nesting parrots of this and related genera (*Brotogeris* and *Aratinga*) are seemingly not only secretive but very inactive around the nest. They feed young by regurgitation a few times a day, spend long hours away from the nest cavity and in it, and the young finally emerge from the nest in practically fully plumaged condition, strongly resembling adults in general appearance (although not color in *A. ochrocephala*). Since the feeding (by regurgitation) of one bird by another is not restricted to adults feeding young, such behavior cannot be used as evidence of breeding. Only the discovery of an adult incubating fertile eggs or caring for young in the nest will suffice.

Areas of what seem to be concentrations of the birds could merely reflect presence of observers who have reported them. However, these areas are: north Pasadena (along Orange-Grove Boulevard), Alhambra, Westwood, west Los Angeles, Lomita, and San Bernardino. Other observations come from Brentwood, Glendale, Altadena, Glendora, Ontario, and Pomona.

The source of these parrots is undoubtedly only accidental escape or intentional release. The Bel-Air district fire of 1961 may have caused the accidental release of parrots that now compose the west Los Angeles group. The fire certainly ravaged many residences where elaborate avicultural activities were a common avocation. Mr. Don Bleitz (pers. comm.) recalls that Mr. Ray Thomas, now deceased, a resident of that district at the time of the fire who maintained large aviaries, informed him of a neighboring aviculturist who opened all his cages about an hour before his home was destroyed by the blaze, releasing large numbers of birds, including many psittacids. A few days later, Bleitz and Thomas observed a flock of Yellow-heads flying about the area where none had been observed prior to the fire. In fact, Bleitz told me (24 January 1973) that he succeeded in trapping one of the birds. Almost all pet shops that sell birds have one to several Yellow-heads. Among the larger psittacids it is by far the commonest species available. Further, it is a rather unpleasant pet, loud-voiced and destructive of woodwork, ill-tempered, and even dangerous to handle. These factors probably promote its release and escape to feral existence. These comments, of course, apply in varying degree to all *Amazona* parrots considered below.

Red-crowned Parrot (*Amazona viridigenalis*).—Very rare, and very local. Consistent observations of two adults of this species (although not definitely the same two each time) in north Pasadena near Orange Grove Boulevard, were made in 1963. I observed two adults near Orange Grove Boulevard and El Molino Avenue in autumn, 1963. These birds were associated with a flock of six *A. ochrocephala* but in flight kept a slight distance as a pair from the aggregation of the other species. Red-crowned Parrots are easily identified by their characteristic vocalization—a combination of upwardly inflected whistles and crow-like cawing.

There is no evidence of breeding of this species in the Los Angeles area and no evidence that more than a few birds are involved in the sightings. However, the species is fairly common in pet shops and has a potential for colonization in the area equal to that of *A. ochrocephala* (see).

Yellow-cheeked Parrot (*Amazona autumnalis*).—Native to tropical eastern Mexico south into the Caribbean lowlands of Central America, this species is known in southern California only from observations over a period of four to five years in downtown San Bernardino, California. Two of this species along with four *A. ochrocephala* form a flock

that currently (January, 1973) can be found there. James Johnson (pers. comm.) took photographs which confirm the specific identification of these birds. The species is not common in pet shops locally or in aviculture, but these sources remain the most likely for the feral birds.

Rose-ringed Parakeet (*Psittacula krameri*).—A small group of this species formerly inhabited and probably bred in the Highland Park community of Los Angeles but are now thought to be extirpated through unknown causes. A full account of the history of this bird in the feral state was published by me in the Condor (Hardy, 1964).

Budgerigar (*Melopsittacus undulatus*).—This Australian species is widely held in captivity and infrequently escaped individuals are noted. Don Bleitz (pers. comm.) assures me that a noisy active colony of these birds existed for a period of several years in lower Topanga Canyon about one mile inland from the Pacific Ocean beach at Malibu, California. According to his personal observation the birds were inhabiting natural cavities in Sycamore trees (*Platanus racemosa*) along the arroyo. No evidence of breeding is available, and I have not ascertained whether or not the colony still exists.[1]

Red-whiskered Bulbul (*Pyncnonotus jocosus*).—This Indo-Malaysian species, though widely held in captivity locally, and noted frequently as an escapee, has not become widely established, as yet. I have been privileged by James Johnson to use the following information on bulbuls from his unpublished MS on exotic birds. There is an active program to collect feral individuals to preclude such establishment. As of 20 January 1972, 47 specimens had been taken in southern California by the Los Angeles County Department of Agriculture. A small population of bulbuls has attained a tentative foothold in the Los Angeles County Arboretum (Arcadia) and in the Huntington Garden. According to Johnson, juvenile birds have been taken at the Arboretum and are now in the Los Angeles County Museum. The birds seem to concentrate around natural ponds or swimming pools (southern California is superb habitat in this regard!) when there is dense vegetation nearby. A nest thought to be of this species was found 25 feet up in an oak tree (*Quercus* sp.) overhanging an artificial fish pond in San Marino (near Huntington Gardens). Another suspected nest of the bulbul was collected nearby from 4 feet up in a "juniper" tree, species unknown, 10 ft. from a swimming pool. An observer had noted bulbuls hovering over the pool and entering the "juniper." I emphasize that neither of these nests has been positively identified as belonging to bulbuls and there exists no less circumstantial evidence than these and the juvenile birds for the breeding of the species in southern California. Bulbuls at the Arboretum were noted by Robert Copper, an employee there, to feed on the fruit of the Paperbark Mulberry (*Broussonetia papyrifera*) (Robert Copper, pers. comm.)

Orange-cheeked Waxbill (*Estrilda melpoda*).—Native to central and west Africa, the species is rare and local in southern California, where it is known only from Averill Park and (occasionally) nearby Peck Park in San Pedro. A loose flock of 15–20 has been consistently observed. Mrs. Shirley Wells (pers. comm.) first noted the birds in 1965 and has made observations yearly into 1972. In April, 1968, she reports that Mr. and Mrs. Harold Baxter of Arcadia, California made the only discovery of any active nests (adults with young), but in October, 1968, Mrs. Wells observed adults feeding a grown juvenile. A marked reduction in the population has occurred in the last two

[1] While this report was in press, Robert and Elizabeth Copper reported to me that in their recent intensive investigation of exotic birds in southern California, supported by the California Department of Agriculture, they found and excavated a nest of *Brotogeris versicolurus* with four young at Pt. Fermin and gathered reliable reports that the Monk Parakeet (*Myiopsitta monachus*) has been found nesting in the San Fernando Valley.

years, possibly correlated with removal of much vegetation in Averill Park. In the eight months prior to January, 1973, there were only two reports (Wells, pers. comm.) without details of these birds.

Many species of waxbills are so popular in aviculture that it is surprising that they are not more often seen as escaped birds. There are a few sightings including uncorroborated reports of occasional nestings by other species. Existence of appropriate predators and competition with native seedeaters may provide too much pressure for survival of waxbills in the feral state.

Cardinal (*Cardinalis cardinalis*).—Common, as a small breeding population in riparian thicket on both sides of the San Gabriel River in the Whittier Narrows area (including especially the Nature Preserve of the County of Los Angeles), near South El Monte, California. According to Grinnell and Miller (1944) Cardinals of various races have been repeatedly introduced into southern California beginning in 1880. The present self-sustaining population was first reported by Henderson (1925) and its probably mixed racial origin discussed by Michener and Michener (1938). A brief study of the birds was undertaken by Koay-Chee Lee, a student at Occidental College in spring, 1972. From Lee's studies, the estimated population of breeding birds seemed no more than 20 pairs in a total area comprising approximately 200 acres. The population seems to be stable in recent years. Some movements in and out of the breeding zone have been reported by several observers, but apparent movements may represent varying degrees of secretiveness and vocalization by the birds. Nesting activity begins in April and all nests with eggs have been found in May. The nesting habitat and the habits of the birds bear a strong resemblance to those of the species in the midwestern United States, according to my observations.

Observations of individual Cardinals are annually made elsewhere in the Los Angeles basin, especially in suburban areas adjacent to those occupied by the breeders, suggesting that these sightings represent stragglers from the established population. Cardinals of neotropical races are, however, fairly common in aviculture locally and these may contribute local feral birds to the observations.

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