



the Spectacled Owl

Pulsatrix perspicillata

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A Little History
A midst the often ugly history of the Spanish conquest of Mexico in the Sixteenth Century, one of the happier details is the work of Fray Bernardino de Sahagun, compiler of *Historia general de las cosas de Nueva Espana* ("General History of the Matters of New Spain").

A Franciscan priest who arrived in Mexico in 1529, eight years after Cortes's destruction of the Aztec Capitol Tenochtitlan, he is popularly believed to have lived to a hundred, dying in 1590. "Sahagun was ordered to write in Nahuatl the information needed by his colleagues for the conversion of the Indians" (Collison, 1983). The greater part of the resulting *Historia* is "an incredibly detailed account of the

beliefs and rites, dictated ... in Nahuatl by Aztec noblemen and priests," "a truly boundless treasury of mythological lore, descriptions of the rites, theological concepts, and religious poetry" (Soustille, 1983).

Sahagun's magnificent labor of love is not, however, restricted to anthropology. His curiosity extended to the flora and fauna of his adopted home, and many of the first published observations of New World life forms are included among "*las cosas*."

Sahagun noted a striking owl, whose voice reminded him of "tiles or plates being struck together" (Grossman & Hamlet, 1964). More than 400 years later, the Marquess of Tavistock (the future 12th Duke of Bedford) in an article in the *Avicultural Magazine*, compared the

call of his pet "Bogey" to a "slow-moving goods tram."

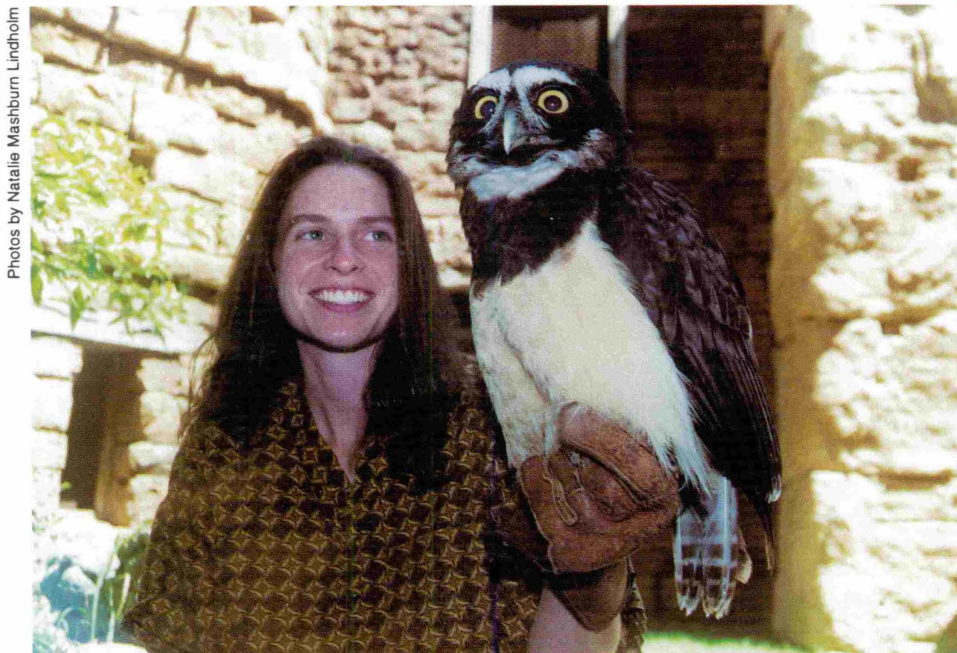
Others may be reminded of "a sheet of tin being flexed quickly" (Howell & Webb, 1995). For aviculturists accustomed to owls that "hoot" or "screech," the low, reverberating, somewhat mechanical "put-put-put-put-put-put-put-put," which ends abruptly, is a pleasant surprise. I have cheerful memories of walking home from the Fort Worth Zoo on fall evenings while hearing this rather whimsical sound coming from the otherwise silent "Raptor Canyon," the hawks, eagles, vultures, and condors having gone to bed with the sunset.

The Spectacled Owl

Throughout its vast range, from the Mexican states of Veracruz and Oaxaca, through the greater portion of the South American Continent, to Northern Argentina, the Spectacled Owl is known as a source of distinctive night-time sounds. In general, it is known in Spanish speaking countries as *Bubo de Anteojos* or *Lechuzon de Anteojos*, both translatable as "Owl of the Spectacles." However, regional names abound. In Costa Rica it is also called the "*Oropopo*" (Stiles & Skutch, 1989), an obvious reference to a call usually phoneticized in books as "*PUP-pup-pup-pup-po*" or "*PUM-PUM-pum-pum*" (Holt, et al, 1999). A Brazilian name is "Knocking Owl" (Grossman & Hamlet, 1964), and in some quarters it's the "Coffin Maker."

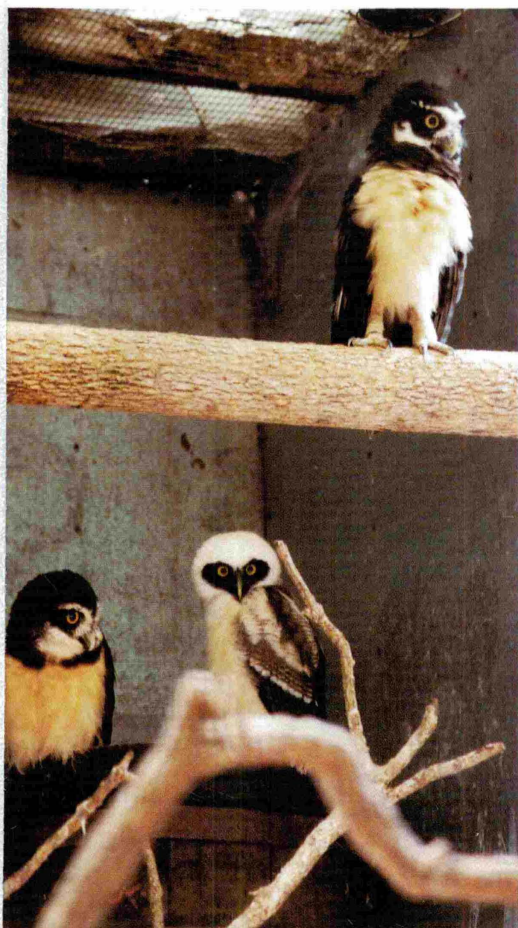
Of course the Spectacled Owl's remarkable appearance has, in its own right, earned it more than the usual attention given to owls. It is the most likely species of tropical owl to show up in bird books, and its combination of bright colors and startling pattern make it memorable. Furthermore, its wonderful juvenile plumage, presenting the illusion of being a negative image of the adult's, lends a cartoon-like aspect, reminiscent of a stuffed toy. In various parts of the species' range, the juvenile Spectacled Owl has been given such names as "White Owl," "Downy Owl," or "Masked Owl" (Grossman & Hamlet, 1964).

It is therefore scarcely surprising that in the days of mass exports of



Photos by Natalie Mashburn Lindholm

Tiffany Karabaich, a trainer for *Flights of Wonder* (a bird show created by Steve Martin, especially for Disney's Animal Kingdom) with a seven year-old bird hatched at the Baltimore Zoo where the North American Studbook for this species is maintained.



A family of Spectacled Owls in an off-exhibit breeding facility at the Oklahoma City Zoo. This chick hatched in 1998.

Amazonian animals, from the 1950s, to the early 1970s, that fledgling Spectacled Owls were a popular item among the vast numbers of animals flown daily from Peru and Ecuador to Miami dealers' compounds.

In the 1960s the Red Uakari, now almost gone from U.S. zoos, was often called "the Poor Man's OrangUtan." Freshly imported baby tapirs were a frequent sight in children's zoos. Pet shops were full of tiny caimans and side-neck turtles. Pet kinkajous, woolly monkeys, ocelots, and coatis were a fad among the trendy. And squirrel monkeys (complete with leashes and "special monkey food") could be ordered out of the backs of comic books for eighteen dollars. While young Spectacled Owls were never really common place in dealer's compounds, the species went from being a great rarity in zoo collections to something one expected to see in the more complete ones.

Steve Sarro, Curator of Birds at the Baltimore Zoo, and Regional Studbook

Keeper for the Spectacled Owl, told me he was sent only one submission predating the 1950s. That was the specimen the San Diego Zoo received 4 December, 1938, in one of the several Allan Hancock expeditions which provided the zoo with an extensive series of South American animals during the 1930s.

This bird established a longstanding age record, living until 3 January, 1962. This has since been exceeded by two birds at the London Zoo. A specimen of the Trinidad subspecies *P. perspicillata trinitatis* was received 6 July, 1949, dying 19 March, 1974. The other came to London 29 August 1951, and died there 30 April, 1976 (Marvin Jones, pers. com.).

There were much earlier U.S. zoo records in fact. The exhaustive list of all the birds acquired by the National Zoological Park in its first 40 years, from 1889 through 1928, compiled by Lucille Mann (1930), wife of Dr. William Mann, the famous long-time director of the zoo, includes two Spectacled Owls. While their arrival dates are not given, it is noted that one of them lived at least three years and one month.

As is usually the case, Marvin Jones, Registrar Emeritus of the San Diego Zoological Society, found, among his nearly 60 year's accumulation of notes, two records of turn-of the century American zoo acquisitions of Spectacled Owls. The first of the two above-noted National Zoo specimens was received 13 August, 1902. The Philadelphia Zoo acquired one in 1906. Though he suspects there were prior ones, the earliest European or British record which Marvin was able to provide me was a bird that lived at the London Zoo from 1923 to 1932, collected by none other than the legendary Walter Goodfellow (after whom the Tree Kangaroo is named), discoverer of, among other things, the Mikado Pheasant and the Mt. Apo Lorikeet.

It was at London Zoo that the first captive breeding took place in 1969, comparatively late as far as owls go. London's initial success was rather isolated, as after 1971 no further hatchings occurred there for 18 years, and no other British zoo bred Spectacled

Owls until 1984, when the Chester Zoo launched its long-term program when two supposed females produced a chick (Wilkinson, 1987).

Truly sustained propagation of Spectacled Owls first occurred in continental Europe in the mid 1970s, when Hanover, Heidelberg, and, above all, Antwerp, began to produce chicks over spans of years. I am under the impression that most, if not all, of the European birds were imported by Dutch or German dealers from Surinam, as opposed to the Amazonian birds shipped to American dealers. Both of these populations are classified as the nominate subspecies *P. p. perspicillata* (Holt et al, 1999).

The only account of reproduction at Antwerp is in French (van Bockstaele, 1977) and I am not aware of any more than passing discussions published in English regarding any German breedings. According to the International Zoo Yearbook (Zoological Society of London, 1959- 1998), the first at least partial second generation captive breeding of Spectacled Owls occurred at Heidelberg in 1981, and the second at Krefeld in 1983.

The International Species Information System (ISIS, 1999) lists, for 30 June, 1999, 16 collections in Britain and Continental Europe, holding among them a total of 42 Spectacled Owls (Many European zoos do not participate in ISIS). Five of these places bred them in the previous 12 months: Antwerp, Zoolgischer Garten Berlin, London Zoo, and The Hawk Conservancy at Weyhill, United Kingdom each hatched one chick, while the Chester Zoo produced three (ISIS, 1999).

Zoo propagation of Spectacled Owls in North America had a comparatively late start. By 1978, when the first U.S. breeding occurred at the Oklahoma City Zoo, seven British and Continental European zoos had already succeeded. As had happened in Britain, it was years before further U.S. institutions followed suit. Of the 10 U.S. zoos indicated by the International Zoo Yearbook to have hatched Spectacled Owls by 1996, seven did not commence until the 1990s. The first at least partial second generation U.S. zoo breeding

TABLE I.

Spectacled Owls (*Pulsatrix perspicillatus*) hatched in European zoos and bird parks from 1959 through 1996.

(Compiled from Records of Birds bred in Captivity in the *International Zoo Yearbook*, Vol.'s 1-36 (Zoological Society of London, 1960-1998)).

	<u>Years bred</u>	<u>Hatched (Juvenile mortalities)</u>
United Kingdom		
London Zoo	1969-71, 1989, 1992, 1994-96	13(3)
Chester Zoo	1984-86, 1988-91, 1995-96	14(6)
The Hawk Conservancy (Weyhill)	1992, 1994-96	5
Germany		
Zoo Hannover	1974, 1977-78, 1980, 1982, 1986	8(3)
Tiergarten Heidelberg	1975, 1978-83	8(2)
Zoo Duisburg	1976	1(1)
Tierpark Berlin	1977	1
Kreffelder Zoo	1977-78, 1982-84	6(1)
Zoologischer Garten Berlin	1984, 1992-94	6(3)
Zoologischer Garten Koeln	1989-90, 1994-95	7(1)
Belgium and the Netherlands		
Antwerp Zoo	1975-93, 1995	28(8)
Stichting Koninklijke Rotterdamse Dirgaarde	1990, 1993	2
Switzerland		
Zoologischer Garten Basel	1978, 1986, 1989-90, 1992, 1994-95	8(1)

took place at the San Diego Zoo, in 1987, followed by the Riverbanks zoo in 1988, St. Louis in 1992, Wichita in 1995, and Birmingham and Phoenix, in 1996 (Zoological Society of London, 1959-98).

I know of only one detailed published account of Spectacled Owls in a U.S. Zoo. This *A.F.A. Watchbird* article is also the only lengthy one in English that I am aware of. Bruce Bohmke and Michael Macek (1994) present a comprehensive discussion of St. Louis Zoo's program through 1993. St. Louis bred from two pairs. Both females were hatched at the Oklahoma City Zoo. One of the males, hatched at the San Diego Zoo, was one of a number of Spectacled Owls hatched in an incubator and hand-raised there. (Kuelher & Good, 1990). The other was a wild-caught bird from the Cheyenne

This bird, hatched at the Phoenix Zoo in 1997, lives at Conservation Station at Disney's Animal Kingdom, an interactive facility full of computer consoles and video monitors, where guests may view veterinary procedures, speak to animal care specialists, and experience a wide variety of animals at close range.

TABLE II.

Spectacled Owls hatched at zoos in the Americas from 1959 through 1996.

(Compiled from Records of Birds bred in Captivity in the *International Zoo Yearbook*, Vol.'s 1-36 (Zoological Society of London, 1960-1998)).

	<u>Years bred</u>	<u>Hatched (Juvenile mortalities)</u>
United States of America		
Oklahoma City Zoological Park	1978, 1980-82, 1985-87, 1989, 1991, 1996	18(7)
San Diego Zoological Garden	1987-91	16(3)
Riverbanks Zoological Park (Columbia, SC)	1988-90, 1992-93	10(1)
Los Angeles Zoo	1990, 1992	3
St. Louis Zoological Park	1991-96	9(1)
Woodland Park Zoological Gardens (Seattle)	1992-96	11(3)
Sedgwick County Zoo (Wichita)	1993, 1995	2
National Zoological Park	1994	1
Birmingham Zoo	1996	1(1)
Phoenix Zoo	1996	2
Costa Rica		
Zoo Ave Wildlife Conservation Park (Alajuela)	1994-95	3(1)
Brazil		
Parque Zoologico Municipal "Quinzinho de Barros" (Sorocaba)	1994	2(2)

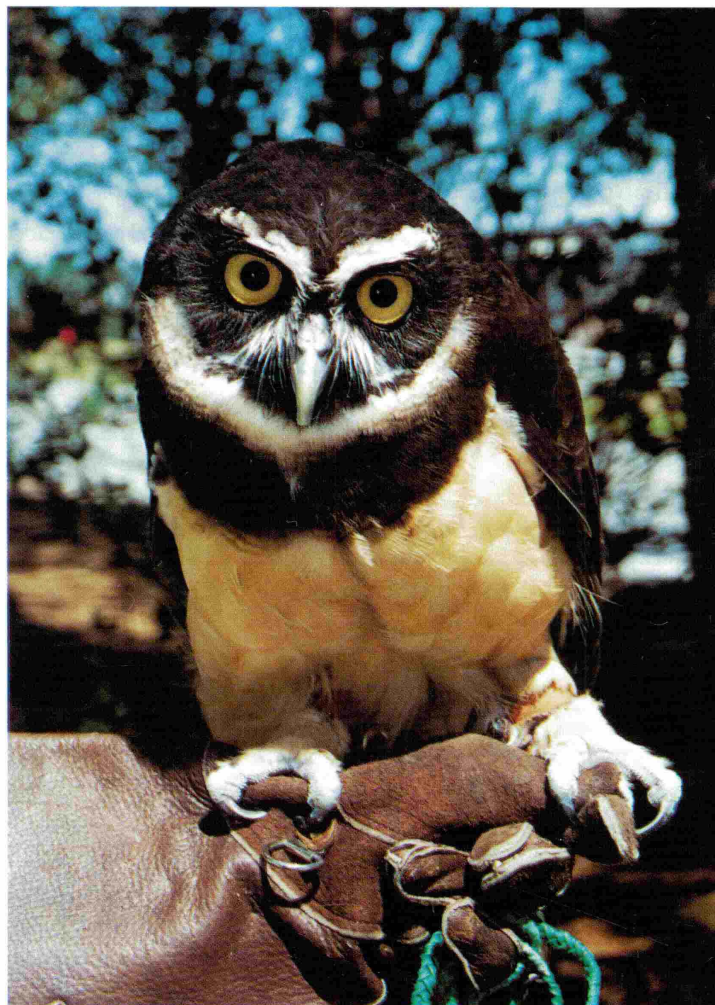


Photo by Natalie Mashburn Lindholm

Mountain Zoo in Colorado Springs.

As of 30 June 1999, ISIS (1999) lists a total of 58 Spectacled Owls distributed among 26 U.S. zoos and related institutions. It is not indicated what proportion of these are captive-bred, but ISIS (1999) indicates that of the 109 held by 46 collections worldwide, 80% are captive hatched and only 4% certainly wild-caught. (The international total of institutions otherwise includes eight in the United Kingdom, eight in Continental Europe, and one each in Canada, Guatemala, Costa Rica, and Colombia.) The International Zoo Yearbook (Zoological Society of London, 1959-98) lists 73 chicks hatched among 10 U.S. zoos from 1978 through 1996.

Only three U.S. zoos are indicated by ISIS (1999) as having propagated Spectacled Owls from 1 July, 1998 through 30 June, 1999: The Phoenix and Toledo Zoos each hatched one, while Oklahoma City hatched two. This species is now managed under a Population Management Plan (PMP) as directed by the Bird of Prey Taxon Advisory Group of the American Zoo and Aquarium Association. A PMP requires the maintenance of a North American Studbook. The one for Spectacled Owls has been ably kept by Steve Sarro, Curator of Birds at the Baltimore Zoo, who has put out three editions since 1992, and is working on a fourth.

Six years ago, Bohmke and Macek (1994) warned: "The number of wild caught birds in the population is small which makes the risk of inbreeding substantial. Close attention must be given to the management of the captive population to avoid genetic problems in the future."

Since the enactment of the Wild Bird Conservation Act in 1993, commercial importation of this species has been prohibited, as it was previously listed as CITES Appendix II. Five U.S. Zoos have produced the great majority of chicks, with Oklahoma City and San Diego particularly well represented. Steve Sarro, informed me that in 1983, San Diego and Baltimore each imported a male hatched at Antwerp Zoo in 1981. Steve told me that it was through the San Diego bird that the

"fawn" phase, with a lighter shade of brown, very pale underparts, and light-colored toe-nails was introduced to the U.S. gene pool. It is now seen in private aviculture as well. My Disney's Animal Kingdom Aviary colleague and fellow *Watchbird* contributor, Greg Bockheim, told me of a breeder in Georgia with several examples of this mutation.


Although serious deforestation continues through a major part of the Spectacled Owl's vast range, resulting in localized populations (Holt et al, 1999), this species is not yet considered "globally threatened." However, this beautiful bird makes an excellent "Flagship Species" to draw attention to the plight of Neotropical rainforests. Both the specimens guests may see at Disney's Animal Kingdom fulfill this role.

One, hatched and parent-reared at the Phoenix Zoo 11 April, 1997, arrived 11 December 1997 as part of the collection at Conservation Station, where along with Tawny Owls, a Tawny Frogmouth, a Red-crested Touraco, a Patagonian Red-backed Hawk, and other birds, it is brought out jessed on a glove at regular intervals, to be seen and heard about by crowds of admiring visitors.

The other, one of the three specimens belonging to Steve Martin Natural Encounters, Inc., appears at the end of Steve's "Flights of Wonder" show at the Caravan Stage. It hatched at the Baltimore Zoo, 15 August, 1992 and was acquired by Steve in 1993. (It does not show up in the International Zoo Yearbook, as it happens that Baltimore breeding records were not received by the Zoological Society of London in 1992 and 1993.) While the Conservation Station bird is somewhat flighty, the "Flights of Wonder" owl is very steady, sitting on a trainer's glove while being endlessly admired and photographed after the show.

It is the hope of those of us at Disney's Animal Kingdom that the messages of biodiversity and the threat of extinction imparted by the "Kilimanjaro Safari," The "Maharajah Jungle Trail," the "Kali River Rapids," and "Count Down to Extinction" will be augmented by these and other individual representatives of their various species.

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