

CORRELATION OF
FEATHER COLOR TO
SEX OF

AFRICAN GREYS

Psittacus erithacus L.

*by Greg J. Harrison, D.V.M.
Lake Worth, Florida*

As we continue to study and learn more about birds from our experiences, we sometimes have a tendency to jump to conclusions from limited data. Let me illustrate.

In early January, a couple from Tampa, Florida, brought in two African Greys for surgical sexual determination. I was particularly interested in African Greys because I had spent some time in the past correlating obvious physical characteristics with the sex, after the sex had been surgically determined.

After carefully looking over the two birds in front of me, I told the owners that I felt confident that they had a pair



African Grey Parrot

— one male and one female. One bird was very broad and flat between the eyes and was a more robust bird. This bird also had a large portion of its small red ventral tail feathers evenly diffused with grey color, except the tips, which were dark red. These had proven to be the characteristics of a male in 100% of those birds examined previously.

The other bird was less bold, was a lighter grey color, had a very sharp forehead and was narrow between the eyes. All ventral tail feathers were white-washed red under natural light, even the very smallest feathers. 57% of the females examined before had fit this description, so I felt this was a female.

Both birds were over 3 years of age and the suspected male was thought to be 7-8 years old.

Much to my surprise, the endoscopic examination of the birds' gonadal tissues revealed them both to be males.

HISTORY

This whole concept started at the Training Seminar on Sexing and Artificial Insemination of Birds held in Houston, Texas, in the spring of 1977.

The zoological world has been working on several methods of sexual determination, and many were presented at that Seminar. One of the most promising methods, hormonal analysis of the droppings, is being done by the San Diego Zoo and is very accurate, but it requires many thousands of dollars of equipment and may not be practical for most breeders for years. Genetic studies are also being done, but require years of normal data to be meaningful.

It was postulated by Robert Berry, the Curator of Birds at the Houston Zoo, that the sex of African Grey Parrots could be determined by the color of the tail feathers. Also, several recent articles have stated that if you observe the feather patterns of mated birds, along with other physical characteristics, such as head width, pelvic bone width, leg stance, etc., you could predict a pair in the future.

Since that time I have studied and photographed samples of tail feathers of all the African Greys that have been brought to the All Animal Clinic for endoscopic examination of gonadal tissue — some 54 birds — and was ready to base a theory on the following data.

CORRELATION OF FEATHER APPEARANCE TO SEX OF AFRICAN GREYS

Fifty-four African Greys were surgically sexed and feather comparisons were

PENNSAUKEN BIRD CO.

- Amazons
- Macaws
- Finches
- Parakeets
- Love Birds
- Cockatiels
- Cardinals
- Conures
- Australian Parakeets
- Lories
- Hamsters
- Mice
- Gerbils
- Guinea Pigs
- Cockatoos
- Hermit Crabs
- Canaries
- Chameleons
- Rats



COMPLETE LINE OF BIRDS & SMALL ANIMALS

Man's
Best
Friend
Is Not
His
Dog!

**U.S.D.A. APPROVED
QUARANTINE STATION**

OUR BIRDS ARE DOMESTIC BRED & IMPORTED
THROUGH OUR QUARANTINE FACILITIES

SEND FOR
CURRENT PRICE LIST



LIVE DELIVERY GUARANTEED

WE SELL, TRADE & BUY ALL TYPES OF BIRDS



Branch Pike and Church Road
Cinnaminson, New Jersey 08077
Phone (609) 829-9447

Tues—Sat. 10 to 5:30
Sun: 1 to 5 pm



WE HAVE A USDA APPROVED QUARANTINE STATION

BUY • SELL • SHIP

BIRDS OF ALL KINDS

*Specializing
in
Finches and Australian Hookbills*

CALL (213) **341-1522** OR (213) **882-7130**

20223 Saticoy St., Canoga Park, CA. 91306

Bracken Bird Farm



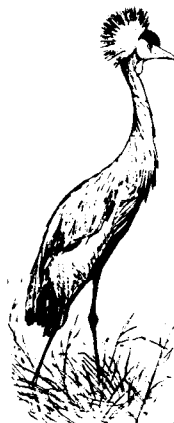
Finches
Cockatiels
Doves
Lovebirds

WE BUY, SELL, TRADE
WHOLESALE
RETAIL

*Specializing in
Zebra Finches and
Cockatiels*

714/792-5735

10797 New Jersey Street
Redlands, CA. 92372



BREEDER
COLLECTOR
IMPORTER
OF
RARE AND
EXOTIC BIRDS

Lories, Pheasants
Doves, Tropical Birds
Water Fowl, Swans
Crowned Cranes
Eclectus Parrots
Cockatoos

FRANCIS BILLIE'S

**TROPICAL
JUNGLE**

VISITORS WELCOME BY
APPOINTMENT ONLY

(213) 444-0253

2980 Huntington Dr.
San Marino, CA. 91108

WE RENT BIRDS AND CAGES FOR
USE IN SHOWS, MOVIES, AND FAIRS

made using small feathers from the vent area and observed under fluorescent light on a dark brown background.

Twelve birds were done prior to the feather sampling and were only included in the sex ratio figures: 10 were males; 2, females. Of the other 42 birds, the following break-down was determined by endoscopic examination of gonadal tissue: Mature males - 12; Immature males - 16; Mature females - 4; Immature females - 10. It is interesting to note here that only 30% of the sampling were females, which seems to be consistent with all psittacines sexed at this clinic.

The following color patterns were evident:

Mature males - One bird had one primary tail feather that was all grey with a red tip. In general, mature males tended to have grey color further out from the center shaft of the feather, with the last 2 cm. of the feather (viewed from the ventral surface under fluorescent light at night) being noticeably redder than the females' (with one exception - one female had a red tip).

Immature males - They tend to have less of a wide grey portion of the feather, but do have some grey near the shaft in all cases, with dark red being the primary color of the last 2 cm. of the feather tips. They may have just a trace of grey on the very tips, as often seen in females.

Mature females - Three of four had a

uniform color to the ventral surface - that of a white-washed red. One had a red tip with grey near the middle of the shaft.

Immature females - Six out of ten had a uniform white-washed red color on the ventral surface. The other four had varying degrees of grey on the tips, but still had an over-all white-washed effect.

CONCLUSION

Although this information is interesting and, at first, seemed to hold some promise for aviculturists in the future for quick and easy sex determination of their African Greys, it obviously is not 100% correct, as was shown by the two birds from Tampa.

One of the flaws of this method, of course, is the fact that it is based on value judgments, and the color even changes under fluorescent or natural light.

If any of the readers are interested in sending me a sample of a feather from the vent area of a known-sex African Grey, perhaps we can further study these and see if a pattern evolves from hundreds of observations.

In the meantime, however, the fastest, most dependable method of sexing birds remains the surgical examination of the gonads. This also has side benefits, in that other organs and body conditions can be observed at the same time: air sacs, kidneys, adrenal glands, body fat; and the degree of general health and reproductive capability can be determined.

OBSERVATIONS OF TAIL FEATHER COLOR OF AFRICAN GREYS

Value judgments were made viewing the feather under fluorescent light against a dark brown background. Small red feathers near the vent were used.*

	Grey Tip	Wide Grey Middle 1/3	Wide Grey Distal 1/3	Distal 2 cm Dark Red	Uniform White-wash	All Grey Red Tip
Mature Males	0	8	0	10	0****	2*
Immature Males	6	7	0	17	0	0
Mature Females	3	0	0	1**	3	0
Immature Females	6	0	2	0***	10	0

*-One primary feather was used as a rare exception, as it was all grey with a red tip.

**-Female had red tip with grey narrow strip in middle 1/3.

***-Two were very close to having dark red tips - was a value judgment.

****-One was very close to uniform, but on closer observation, the tips were darker red.