

may provide the last "link" for the answer to the puzzle. According to the saga, Bran's head (at his own request) was buried on the White Mount (White Hill or Tower Hill) in London, as a charm against invasion and other disasters. Although this is said to have taken place before the building of the Tower of London, the story was, of course, known. It will be noted that Tower Hill is by the river, where Bran's alder (tree of divination and resurrection) would have flourished.

Here, then, are the pieces for a possible explanation of the legend: Bran's miraculous oracular head, his sacred water-loving tree, and his sacred bird, the raven. Even if one does not accept the story of Bran's supernaturally-gifted severed head, the link between ravens and prophecies is still, apparently, remembered.

There are two possible interpretations of the legend. The obvious one is that the departure of the ravens would, in effect, symbolize the removal of Bran's oracular head, which is supposed to guard the country.

A slightly more convoluted interpretation is, however, worth considering. In other words, could cause and effect have become reversed, that is, that, rather than disaster occurring *because the ravens have gone*, perhaps they go *because they see disaster coming*, rather like avians rats from a sinking ship?

Of course, the whole thing is merely speculative, but in any event, it would seem that the authorities are taking no chances, for while the Tower ravens are, of course, well cared for, their flight feathers are clipped, so that (unless they actually walk away) they remain at their historic home, and the country and Crown are safe.

Acknowledgements and References

- Gods and Myths of Northern Europe*, H.R. Ellis Davidson, Pelican Books, 1964, England, copyright ©H.R. Ellis Davidson, 1964. Extracts from pp. 65-6 and 146-7 used in article. Reproduced by permission of Penguin Books Ltd.
- The White Goddess*, Robert Graves, Faber & Faber Ltd., 1948. By permission of A.P. Watt Ltd., on behalf of the Executors of the Estate of Robert Graves.
- The Crane Bag and Other Disputed Subjects*, Robert Graves, Cassell & Co. Ltd., 1969. Extract used by permission of A.P. Watt Ltd., on behalf of the Executors of the Estate of Robert Graves.
- The Oxford Nursery Rhyme Book*, collected by Iona and Peter Opie, Oxford University Press, 1955.
- The Annotated Mother Goose*, William S. and Cecil Baring-Gould, Bramhall House, 1962.
- The Golden Bough: A Study in Magic and Religion*, Sir James Frazer, Macmillan Ltd., 1970. By permission of A.P. Watt Ltd., on behalf of the Council of Trinity College, Cambridge, England. ●

Avian Identification

by Ross S. Anderson, D.V.M.
West Valley City, Utah

Recent proposed and passed legislation in New York and other states precludes the sales of most wild caught birds. Only domestically bred birds are allowed to enter the animal trade. These laws necessitate the need for distinction between birds locally produced and birds legally or illegally imported.

Identification of individual animals within any species is difficult. Unless an animal has unique features, such as missing appendages or an unusual color pattern, it can easily be mistaken for another of the same species. Even to the trained eye, subtle differences of appearance between animals can be confusing.

One needs to be able to differentiate individual animals to ascertain sex, genetic makeup, age and legal status. Ear tags, ear notches, freeze brands, hot brands, tattoos and collars are frequently used in mammals. Various methods to mark birds have been tried. Toe clipping, web notching, and wing banding work well for certain species. Open banding, where a premarked band is placed on the leg of a bird by a clamping device, is commonly used. These bands, if properly placed, work well when one is dealing with animals that don't chew. However, many birds, including those nonchewers, can injure themselves by catching the band on wire or by clamping the band so as to cut off the blood supply to the foot. The open band also has the disadvantage of being easily removed, altered and replaced.

Because of the nature of the skin of birds, tattooing is impractical. Any mark soon becomes an illegible blur. For this reason, it is limited to coarse site marking such as right versus left or red versus black. Tattooing has the added disadvantage of necessitating the handling of a bird to verify its mark.

Closed banding has been practiced by the pigeon industry for many years. A ring shaped band with identifying letters and numbers is placed on the bird before the bird reaches adult size. The bird is then allowed to grow into the band. In this way, an adult bird can be permanently marked. Even birds that chew cannot remove the band and there is no gap to catch on caging. Once on, the band cannot easily be removed,

therefore illegal forging is discouraged. Closed banding does have disadvantages. Older birds cannot be properly banded; what can be placed on, can also be pulled off. Closed bands can catch on objects and traumatize the underlying structures. If the leg starts to swell for any reason, a closed band will act as a tourniquet. Birds can be closed banded and still be illegal if the bird is caught at an early age. Nonetheless, in psittacine propagation this is the recommended means of identification.

In our aviaries, we faced the problem of permanently identifying our progeny as our legal domestically bred stock. We have developed a system of identification that includes closed bands, with a combination number and letter sequence, as well as an accompanying certificate containing the vital data. Certainly this combination of leg band and certificate can be easily duplicated; however, we make it difficult to duplicate the certificate by a number of checks and balances. The color and type of paper used is not universally available. The ink used to fill out the certificate is also not easily copied. The bird's band number is recorded as well as its species, color variation and hatching date. One certificate is issued for each bird. We record the first owner in the space provided and the original certificate is to go with the bird to each successive owner. We sign the certificate and emboss the signature with a specially made "notary" type stamp which, in our case, matches the logo contained in the certificate. All this can be counterfeited. However, we hope to make it economically unjustifiable to do so.

Certainly this procedure would not be used for all domestically bred birds. The paperwork and expense would be prohibitive. However, when dealing with birds that are expensive or easily smuggled, the procedure has merit. We hope by identifying our birds as legal and domestically bred, we can inhibit the ease in which illegal birds co-mingle in the pet trade. We hope this voluntary measure will help circumvent further restrictive legislation. We encourage others to adopt our method or develop their own in order to infuse responsible professionalism into the business of aviculture. ●