

## **New ring developments**

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### **ENGRAVED COLOUR RINGS**

SAFRING has discovered a reliable manufacturer of engraved colour rings in Canada. The company, Pro-Touch, makes rings out of two colours of plastic sandwiched together. Symbols engraved on these rings are in the bottom colour against a background of the top colour. The numbers and letters on these rings are made as large as possible, and can generally be read with telescope or binoculars from sensible distances. The engraved symbols appear several times on the rings, so they are visible from all angles. The smallest-size engraved colour ring has an internal diameter of 8 mm, which restricts their application to medium and large birds, from about gull-size upwards.

For projects in which birds need to be individually identified, there are advantages of using these engraved rings over combinations of colour rings. Firstly, the bird has fewer rings. Secondly, the number of possible combinations is much larger. For each pair of colours for the engraved rings, and with only two symbols per ring (the letters of the alphabet and digits, and eliminating the problems (one and I, zero and O, etc)), there are about 1000 usable combinations. Thirdly, the classic problems of multiple colour rings are largely eliminated: observers confusing left and right, and not giving accurate descriptions of the order and positions of rings, and the loss of one or more of the colour rings from the combination. SAFRING does not keep stocks of these new rings, but will assist and advise anyone wishing to use them. There are already active projects in South Africa and Namibia using Pro-Touch rings on waders, gulls, terns and cormorants, and the initial experiences have been positive.

### **PENGUIN FLIPPER BANDS**

The designs used for flipper bands for penguins have long been a source of debate. Over the past few years, the concern has been about the hydrodynamic drag of the present design. Our own studies, conducted by a mechanical engineering student, showed that, at maximum swimming speeds, the drag caused by SAFRING flipper bands, increased energy use by 3–5%. This is regarded as acceptably small, but clearly new designs which reduce this would be welcome. Peter Barham, a polymer physicist at the University of Bristol in the UK, and his students are currently working on a revolutionary new flipper band. The new band is essentially a disc with a slit in it for the flipper, fitting closely to the penguin's body and perpendicular to the plane of the flipper. It reduces drag by having an acrofoil design. The material is a lamination of sophisticated modern plastics which will accommodate the swelling of the flipper during moult but which will contract afterwards to achieve a snug fit. After extensive testing in the laboratory and on zoo penguins, it is likely that field testing will be on African Penguins.

### **WHITE STORKS**

Walther Feld, an active White Stork specialist in Southern Germany, has developed a new type of plastic ring for storks in cooperation with the Fraunhofer Institute for Chemical Technology (ICT) in Karlsruhe, Germany. To enable field readings of ring numbers most White Stork rings have been fixed above the intertarsal joint of the leg. It has been found, however, that crusts of dry faeces on the inside of the conventional stork rings may cause

a handicap, injury or death to the bird. As a consequence, the ringing of White Storks with conventional rings above-intertarsal joint has been prohibited in Germany. The new stork ring was presented to the three German ringing centres and to the main critics of White Stork ringing in Germany. There was consensus that the above-intertarsal ringing can be continued if the features of the new ring type described by the Fraunhofer Institute will prove itself under field conditions. The new type of bird ring could be used for many other purposes as well. These rings are not in use yet owing to testing. For more details see the first Internet site listed below.

### REPORTING COLOUR RINGS AND OTHER MARKINGS

There are currently many projects in South Africa that are marking birds using an assortment of techniques. SAFRING will assist and promote such studies as much as it is able. Three important issues arise. (1) It is wise to consult SAFRING before initiating such a project; this ensures that duplication of markings are avoided and it provides a central registry of such projects. (2) In communications to the general public, request that sightings of colour-marked birds be made to SAFRING. SAFRING will forward sightings to the organisers of the relevant project, usually by email. This approach avoids the situation

where the public gets so many different messages about reporting these birds, that when they actually see one, they cannot recall any of the addresses. If we adopt this uniform approach, loss of records will be minimised; the SAFRING office is staffed virtually continuously during normal office hours, experienced people take the phone calls, and there is an answering machine for after-hours reporting. The message to the general public should be modelled on the following statement: 'Please report all sightings of colour-marked birds to SAFRING at the University of Cape Town, Rondebosch, 7701; phone (021) 650 2421; fax (021) 650 3434; email safring@maths.uct.ac.za. The information required is date, place, and an accurate description of the colour marks and where they were placed on the bird. Additional information such as activities, flock size, etc., is also valuable. If you find a dead bird with a ring, the ring number and likely cause of death should be reported to SAFRING.' (3) The 'inner circle' of project participants, who are likely to make most of the resightings, should preferably report these directly to the project coordinator. At some stage, these resightings should be transferred to the SAFRING database, so that they are available in future. SAFRING has systems in place that these resightings can be coded as belonging to the project, and therefore not available for release until the project is completed.

### Some foreign ringing web-sites

White Stork rings	<a href="http://vowa.ornithol.mpg.de/~vwrado/storchring/storkri1.html">http://vowa.ornithol.mpg.de/~vwrado/storchring/storkri1.html</a>
Ringing links	<a href="http://www.lbo.org.uk/">http://www.lbo.org.uk/</a>
Colour ringing	<a href="http://www.ping.be/cr-birding/cr-birding.htm">http://www.ping.be/cr-birding/cr-birding.htm</a>
Germany	<a href="http://www.hnm.de/vv/beringung/homepage.htm">http://www.hnm.de/vv/beringung/homepage.htm</a>
Ontario	<a href="http://sites.netscape.net/tntcomm/obba/OBBA.htm">http://sites.netscape.net/tntcomm/obba/OBBA.htm</a>
San Pedro	<a href="http://www.theriver.com/public/fspr/banding_reports.htm">http://www.theriver.com/public/fspr/banding_reports.htm</a>
Toronto	<a href="http://www.communicue.se/medit/toronto/muggs.htm">http://www.communicue.se/medit/toronto/muggs.htm</a>