### SUGGESTED DATA RECORDING PROCEDURES WHEN COLOUR-RINGING CAPE VULTURE NESTLINGS

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# INTRODUCTION

Anyone who has clambered up a white, excreta-covered Cape Vulture breeding cliff on a hot, humid day will readily appreciate that it is not the ideal environment for the assembly of micro-electronic circuits, direct data-encoding forms or a luncheon engagement. In the light of nearly a decade's experience of misringing nestlings, miscoding mismeasured data and blown away colour combination sheets, we would like to motivate a data recording procedure that we have evolved to handle all predictable non-Murphian eventualities.

The system is composed of three phases: (1) preparation, (2) execution and (3) summarization.

1. PREPARATION

In the past preparation for a colour-ringing expedition consisted of giving the ringer the original colour combination sheet (of which no copies had been made), 50 metal rings, 250 colour rings (assorted), pliers, wing rule and a dozen beers.

After recording the first three colour combinations the combination sheet would be caught by an updraught and would waft aloft. The remainder of this scenario being both obvious and painful, we cease the frivolity and recommend the following preparation procedure:

- a. The combinations should be packaged in small sets (about 10) which have one three-ring combination fixed (usually the metal and area/year code) and the other with the top colour also fixed.
- b. Two spare rings of each colour and two spare metal rings should also be enclosed.
- c. The bag should bear a unique number on the outside.
- d. It should contain a small notebook (attached to the bag by a string) in which are written the combinations as per Fig. 1 overleaf.

Safring News 16

| COLONY:        | CLIFF:        |                     | NEST:    |  |
|----------------|---------------|---------------------|----------|--|
| RINGERS:       |               |                     |          |  |
| DATE:          |               |                     |          |  |
| RING NUMBER:   |               | COLOUR COMBINATION  |          |  |
|                |               | LEFT                | RIGHT    |  |
|                | (ankles)      |                     |          |  |
|                | Тор           |                     |          |  |
|                | Middle        |                     |          |  |
|                | bottom        |                     |          |  |
|                | (foot)        |                     |          |  |
|                | В             | B = Blue, S = Swart |          |  |
| WING:          | MASS TOT      | MASS TOTAL:         |          |  |
|                | MASS BAG:     | MASS BAG:           |          |  |
|                | NETT:         |                     |          |  |
| ABNORMALITIES: |               |                     |          |  |
| NEST CONTENTS  |               | REGURGITATE (       | CONTENTS |  |
|                |               |                     |          |  |
| SCRIBE:        | RINGING DATA: | GING DATA: PUNCHED: |          |  |
|                | CHECKED:      |                     |          |  |

FIGURE 1 CAPE VULTURE NESTLING RINGING FORM

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e. The base station should have:

- (i) A set of duplicate record sheets (i.e. identical to those of Fig. 1),
- (ii) A set of large black and white photographs which have the nest numbers clearly annotated on them.
- (iii) The base team should have at least two working walkie-talkie radios, switched to the same frequencies and channels as those of the mountaineers.

# 2. EXECUTION

When visiting a nest the ringer/mountaineer should ring, measure and examine the chick, the nest and regurgitate, in the usual manner, while his colleague records the data in the notebook. We then recommend that:

- a. They relay the data back to the base camp by radio (in English, avoiding numerate short-hand such as 10-4, which we all know comes from Children's Band i.e. C.B.).
- b. While the mountaineer is reading out the data his colleague should physically check the nestling's ring number and colour combination.
- c. The base should, on reception, echo the data thus allowing the rockface team to verify it and should also give them the nest number to enter into their field notebook.
- d. The current casual method of relaying colour codes as red, yellow, green (say) leads to too much recording error; we suggest that a slow pedantary is to be prefaced, e.g. "left leg, green over yellow over red" or "on the left, starting at the foot (claw) red <u>under</u> yellow <u>under</u> green". Furthermore, we use swart rather than black, so that we can use one character code, e.g. 'B'=blue, 'S'= swart, etc.

#### 3. SUMMARIZATION

Errors are most easily detected if they are sought close to the time of data capture; so we recommend that:

a. At the end of each day's ringing there should be a reconciliation of the fieldbook data with that of the base station.

- b. The ringing schedules and colour combination summaries should be updated.
- c. The data should be eye-balled (i.e. examined) for obvious gross errors.

# DISCUSSION

The field data form shown in Fig. 1 is printed on an A4 sheet which is duplicated for the base station. This same form is photo-reduced to A6 (an easy process on a modern photocopier) and stapled together with a stiffening card sheet to form the field notebooks. It has two classes of data on it, viz:

- (i) data required by the ringer and
- (ii) areas in which the ringer can fill in data

We do not have a fool-proof, let alone mountaineer-proof methodology, but would advocate that care and thought need to go into data recording techniques, especially if they are to be used by non-specialists in a harsh and fowl environment.

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