

Appendix 4: Protocol for Translocation of Black-headed Dwarf Chameleons *Bradypodion melanocephalum*

Ezemvelo KZN Wildlife is a member of the World Conservation Union (IUCN). Accordingly, the IUCN/SSC Guidelines for Re-introduction form the basis for this protocol, and these should be read in conjunction with this protocol for further information and reasons for each step of the protocol.

1 Project Team

1.1 A multidisciplinary team consisting of at least four members from a variety of backgrounds but with the required range of expertise for the release of black-headed dwarf chameleons will be formed and a team leader selected. The team leader will be responsible for the correct implementation of the protocol, and consultation and collaboration with appropriate KZNNCS staff.

2 Release Project Documentation

2.1 A document will be opened detailing each step of the release plan below, and the members of the project team will certify the successful completion of each step by signature before the completion of the next step. All documentation and references relevant to the release process will be included in, or appended to, the release plan.

3 Collation of Information

3.1 Literature detailing previous translocations or re-introductions of chameleons should be collated and the factors that contributed to the success or failure of the re-introductions should be noted. Lessons learned should be applied the release programme wherever applicable. Contact with members of those re-introduction projects should be made to glean further information and advice where required.

3.2 Information on the ecological requirements, natural history, social organisation and demographic parameters of the black-headed dwarf chameleon should be collated from the literature, and critical needs highlighted.

4 Criteria for Release Areas

4.1 The areas to which the black-headed dwarf chameleons are to be temporarily or permanently translocated should have had a population of the black-headed dwarf chameleon in the past but should have few or no black-headed dwarf chameleons at the time of the release.

4.2 The factors that caused the decline in the black-headed dwarf chameleon population in the release areas should be known and no longer operating or else should be under long-term control before the translocation proceeds.

5 Spatial Considerations

5.1 The amount of suitable habitat for the black-headed dwarf chameleons in the release areas should be calculated as accurately as possible.

5.2 The number of black-headed dwarf chameleons that are still present in the release areas should be determined, and the area required by these remnant black-headed dwarf

chameleons, if any, calculated.

- 5.3 The regions surrounding the release areas need to be investigated to ensure that the black-headed dwarf chameleons or their offspring can disperse into suitable adjacent habitat should the population exceed the carrying capacity of the release area.

6 **Composition of Release Group**

- 6.1 The potential number of black-headed dwarf chameleons that could be released into the remaining "empty" habitat should be calculated. Calculations could be based on the carrying capacity of the remaining available habitat for black-headed dwarf chameleons or on the percentage of the carrying capacity of the total suitable habitat in the areas that would promote the attainment of maximum reproductive rate of the black-headed dwarf chameleons.

- 6.2 The number of black-headed dwarf chameleons translocated to each release area, in conjunction with any remnant wild black-headed dwarf chameleon population, should constitute an adequate founder population to sustain the total population in the release area. The number, size and timing of further re-introductions of black-headed dwarf chameleons to maintain genetic heterozygosity in the release areas should be calculated where the population size is too small to maintain sufficient genetic variability within the population.

- 6.3 A minimum viable population of the black-headed dwarf chameleon should be supported in the release area, or where this is not possible, at least in the release area and surrounding region. Factors operating in the surrounding region that may initiate and sustain a decline in the black-headed dwarf chameleon population should be eliminated or at least subject to a long-term, continuous and adequate control program that commences before the release of the black-headed dwarf chameleons. The release program should be fully understood, accepted and supported by the surrounding landowners and local communities. Protection of the black-headed dwarf chameleon population must be assured.

- 6.4 The demographic composition of the group of black-headed dwarf chameleons to be released should be based on that needed to attain in the release area the known or estimated population parameters for that species or subspecies.

7 **Preparation for Monitoring**

- 7.1 A monitoring programme must be drawn up before the release, indicating how the released black-headed dwarf chameleons will be monitored, the frequency of monitoring and the probable duration of the monitoring programme, and setting down reliable indicators of the success or failure of the release project.

- 7.2 The system to be used to individually identify each black-headed dwarf chameleon that is released must be chosen and implemented before transport of the black-headed dwarf chameleons to the release areas. The marking system must allow individual recognition of black-headed dwarf chameleons during the monitoring phase.

8 **Transport**

- 8.1 Transport plans must be developed, including the means of transport, the duration of the trip, the dimensions and type of the containers and the provision of critical supplies such

as water and correct food to meet the needs of the black-headed dwarf chameleons.

- 8.2 Methods to minimize stress to the animals during transport should be agreed upon and implemented.

9 **Acclimation**

- 9.1 The type of holding facilities for the black-headed dwarf chameleons during the acclimation period at the release area, the siting of the holding facilities, the type of provisions required by and that should be given to the black-headed dwarf chameleons during the acclimation phase, and the duration of this phase should be determined and reported.

10 **Release**

- 10.1 The black-headed dwarf chameleons should be released at the agreed sites at the agreed time in the agreed manner.

11 **Monitoring**

- 11.1 The monitoring programme must be effected after the release of the black-headed dwarf chameleons and the indicators of the success or failure of the release must be reported at the agreed frequency for the duration of the monitoring programme.

12 **Review**

- 12.1 The release protocol and the release project should be amended where necessary using the insights gained from releases of the black-headed dwarf chameleons.

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