

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA

Meeting of the Nomenclature Committee
Geneva (Switzerland), 19 August 2003, 18h00

TAXONOMY AND DISTRIBUTION OF *PANDINUS* SPECIES LISTED BY CITES

This document has been prepared by the German Scientific Authority.

The three *Pandinus* species *dictator*, *gambiensis* and *imperator* were listed on CITES Appendix II by vote of CoP9 in 1994. Since then several papers with contradictory information have been published or compiled dealing with their taxonomy and distribution.

Republic of Ghana (1994): Inclusion of *Pandinus dictator*, *Pandinus gambiensis* and *Pandinus imperator* in Appendix II. Proposal submitted to the 9th CITES Conference of the Parties November 7-18 1994.

Lourenço, W.R. & Cloudsley-Thompson, J.C. (1996): Recognition and distribution of the scorpions of the genus *Pandinus* Thorell, 1876 accorded protection by the Washington Convention. -- Biogeographica 72(3): 133-143.

UNEP-WCMC & al. (1999): *Pandinus imperator* (Koch, 1842). -- Assessment of taxa included in Phase IV of the Significant Trade Process. Doc.AC15.14.4, :149-153. Submitted at the 15th meeting of the CITES Animals Committee.

Fet, V., Sissom, W.D., Lowe, G. & Braunwalder, M.E. (2000): Catalog of the Scorpions of the World (1758-1998). 690 pp. New York (New York Entomol. Soc.).

UNEP-WCMC (2001): Checklist of fish and invertebrates listed in the CITES appendices and in the EC regulation 338/97. pp. JNCC Report No. 292.

UNEP-WCMC Species Database, homepage as of August 30 2002.

1) Original listing proposal

Unfortunately the taxonomy of *Pandinus imperator* and its distribution was still quite unclear when the original listing proposal was written. With regard to the distribution of *Pandinus imperator* it lists various references according to which the species does not only exist in West Africa but in Central and East Africa as well. However, comments made with regard to several references make quite clear that the authors of the proposal regard *Pandinus imperator* as a West African species only. Especially the distribution in East Africa listed by LAMORAL & REYNDERS (1975) (Eritrea, Ethiopia, Somalia, Sudan, Madagascar) is rejected by them as this information is regarded to be based on misidentification or labelling errors.

By their final comment the authors restrict the listing of *Pandinus imperator* the West African populations (with the exemption of Chad listed by VACHON 1967). This intention of the authors is obvious despite the fact that they may have misinterpreted VACHON's original French wording (as indicated in CITES Doc.AC15.14.4 in 1999).

2) Lourenço & Cloudsley-Thompson 1996

In 1996 LOURENÇO & CLOUDSLEY-THOMPSON published a revision of the three *Pandinus* species listed by CITES providing not only a clear identification key for the genus *Pandinus* as well as the species concerned but also revising prior references with regard to their distribution. According to this publication all three species are restricted to West Africa.

3) UNEP-WCMC & al. 1999, 2001, 2002

In a document provided for the 15th meeting of the CITES Animals Committee in 1999 all references indicating a distribution of *Pandinus imperator* outside West Africa are revived again - although many of them bear the mark of possible misidentification or mislabelling. With regard to the distribution of *Pandinus imperator* in countries between Senegal and Chad the authors refer to a misunderstanding of the original French wording of VACHON (1967) by the authors of the CITES listing proposal. Until today this wide distribution (including 19 range states with 8 of them bearing a question mark) is reflected in the UNEP-WCMC database and - consequently - in the latest "Checklist of fish and invertebrates listed in the CITES appendices and in the EC regulation 338/97" published in 2001.

4) Catalogue of the Scorpions of the World (2000)

Information regarding a non-West African distribution of *Pandinus imperator* is partly picked up by FET & al. (2000) referring almost entirely to publications prior to the revision of LOURENÇO & CLOUDSLEY-THOMPSON (1996) although it is mentioned as well that the latter authors restrict the distribution of *Pandinus imperator* to West Africa only.

5) Conclusion

The compiled information is quite confusing and irritating with regard to CITES implementation. Summarizing we come to the following conclusion:

- a) Despite the fact that the authors of the original listing proposal may have misinterpreted VACHON (1967) it was their clear intention to restrict the listing of the *Pandinus* species to West African populations only.
- b) The only recent publication known to us to provide identification keys for the genus *Pandinus* as well as the three species concerned is that of LOURENÇO & CLOUDSLEY-THOMPSON (1996). They restrict the distribution of the three *Pandinus* species to West Africa.

Therefore we suggest to accept LOURENÇO & CLOUDSLEY-THOMPSON (1996) as standard taxonomic as well as distribution reference for the CITES listed *Pandinus* species. Future publications enlarging the range of these species should only be accepted for an inclusion in the UNEP-WCMC database if these publications are based on the taxonomic characters as outlined in LOURENÇO & CLOUDSLEY-THOMPSON (1996). This would result in the following range states indicated in the UNEP-WCMC species database:

<i>Pandinus dictator</i>	Cameroon, Congo, Equatorial Guinea, Gabon, Nigeria
<i>Pandinus gambiensis</i>	Gambia, Senegal
<i>Pandinus imperator</i>	Benin, Côte d'Ivoire, Ghana, Guinea, Liberia, Nigeria, Togo