A history of the collection of freshwater fishes and a catalogue of the types of freshwater fishes in the Albany Museum, Grahamstown

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INTRODUCTION

The aims of this paper are to present briefly the history of the fish collection in the Albany Museum and to catalogue its present type holdings. The present collection is a comparatively recent development and its type holdings have not yet been published. A number of earlier types of both marine and freshwater fishes which were originally in the Museum are no longer housed there and it is therefore necessary to clarify which types are present. The present type holdings post-date the South African Museums Association (1958, 1962) list of zoological and botanical types preserved in collections in southern and east Africa.

ABBREVIATIONS AND TERMINOLOGY

A number of different acronyms have been applied to fish specimens registered in the Albany Museum in publications since the early 1960's. In the list of zoological and botanical types published by the South African Museums Association (1962) the abbreviation AM was used to denote the Albany Museum. Fish registrations recorded by R. A. Jubb in various publications (e.g. Jubb 1964a and b, 1965a and b, 1966) were prefixed by the initials PF. This prefix was derived from the catalogue numbers of the Provincial Fisheries Institute, Lydenburg, Transvaal which supplied much of the material dealt with in these publications. [An alternative suggestion that PF refers to *Pisces Fluviatilis* is unlikely]. Skelton (1974, 1976) used the prefix AM/P for fishes registered in the Albany Museum. This prefix designated *Albany Museum/Pisces* and was used to distinguish the fish collection from other biological collections in the Museum. In more recent publications (e.g. Skelton 1984, 1985) the prefix AMSA/P was used. The SA was added to denote *South Africa* in order to avoid confusion with other institutions with similar initials such as the Amsterdam Museum in the Netherlands. Recently

Leviton *et al.* (1985) presented AMG as the official international acronym of the Albany Museum. This is a suitable acronym denoting *Albany Museum Grahamstown* and is accepted here as the standard prefix for fishes registered in this museum.

The terminology of types used in this paper follows that of the International Code of Zoological Nomenclature (3rd Edition) (1985). Type localities in the catalogue are as given in the original descriptions of the species.

HISTORY OF THE FISH COLLECTIONS IN THE ALBANY MUSEUM

Although the Albany Museum was established in 1855 the earliest reference to fish in its annual reports was in 1879 when a "curious *Ballistes conspicullum*" (a triggerfish) from the coast was presented by Dr H. Becker. Dr S. Schönland, who became "Curator" in 1889, declared in his first annual report, "I shall endeavour to form a good collection of fishes which could be of great scientific and practical importance". In 1892 he reported that the fish collection was "still small but growing steadily".

During the following decade the Museum acquired fishes mainly for display purposes. A few relics from this time have survived, for example a jar showing the embryology and development of a trout and a skeleton of the European pike, *Esox lucius,* with the skin on one side.

In October 1906 an article appeared in the Grahamstown newspaper, *The Journal,* headed "Fresh Water fishes of South Africa". The article, written by Dr J. D. F. Gilchrist of the South African Museum in Cape Town, was a call for the collection and study of freshwater fishes. The intention seems to have been for various museums in the Cape Colony, including the Albany Museum, to become regional repositories for local freshwater fishes. Response in the eastern Cape seems to have been poor.

In 1910 Mr (later Dr) J. Hewitt became Director of the Albany Museum and in his first annual report summarized the state of the various collections. The essentially marine fish collection was of minor significance. Appeals by Hewitt for freshwater fishes in 1912/13 appear to have met with little response and fishes received scant attention by the Museum until 1929 when it was first mentioned that Dr (later Professor) J. L. B. Smith of the Rhodes University College Chemistry Department was taking an interest in the fish collection. By 1930 the annual report noted that Smith had gathered and arranged all the fishes in one room of the museum. Smith was primarily interested in marine fish. In 1931 a collection of freshwater fish from the Hunyani River, Southern Rhodesia (now Zimbabwe) was contributed by Mr (later Dr) R. A. Jubb. This was the first mention of Jubb who was destined to play a major role in the history of the freshwater fish collection.

Soon after beginning to curate the fish collection Smith started to publish scientific papers on fishes. The first of these (Smith 1931) appeared in the *Records of the Albany Museum* and over the next ten years a further twenty-five papers based largely on specimens in the Albany Museum collection were published. By 1940, as a result of Smith's interest, fishes had become a leading collection in the Albany Museum. The discovery in 1939 of an extant coelacanth further inspired Smith's ichthyological interests and undoubtedly influenced his decision in 1946 to pursue this science on a full-time basis.

A fire on Saturday 6th September, 1941, destroyed many of the exhibited fishes but the study collection of fishes was preserved.

In 1946 Smith was appointed Research Professor in Ichthyology at Rhodes University College, the necessary funds being provided by the newly established Council for Scientific and

Industrial Research. In 1952 the Museum's study collection of fishes and some fish literature was entrusted on loan to Professor Smith and housed in the Ichthyology Department at Rhodes University.

In 1957 Mr and Mrs Jubb returned to Grahamstown and joined the Ichthyology Department at Rhodes University. Though by profession a meteorologist, Rex Jubb had established a reputation as an authority on the freshwater fishes of the Rhodesias and Nyasaland through numerous published articles. He and his wife made several collecting trips to various parts of southern Africa resulting in a rapid expansion of the collection. In 1961 because of a lack of storage space the Jubbs, with the freshwater fish collection, moved from their accommodation at the University to the Albany Museum. Consequently, in 1962, the Museum established a permanent post for an ichthyologist to curate, develop and research the freshwater fish collection. Mr F. L. Farquharson was appointed to this post and held it from February 1963 to the end of 1970. Jubb continued his active systematic research, publishing several papers including two important general works, Freshwater fishes of the Cape Province (Jubb 1965a) and his *magnum opus, The freshwater fishes of southern Africa* (Jubb 1967a, illustrated by H. M. Jubb). The Jubbs played an active curatorial role until the mid 1970's. Mrs Jubb's distinctive label calligraphy sets their collections apart from subsequent accessions.

Farquharson was succeeded by Mr (later Dr) P. H. Skelton who held the post from January 1972 until the end of 1983. During this period the collection grew from about 1 700 accessions to more than 10 000 making it indispensable for further systematic research on southern African freshwater fishes.

Mr J. A. Cambray took over from Skelton in 1984 and under his guidance the collection is continuing its growth.

CATALOGUE OF TYPE SPECIMENS OF FRESHWATER FISHES

ORDER CYPRINIFORMES

FAMILY CYPRINIDAE

***Barbus barnardi* Jubb 1965**

Holotype: AMG/P 1055, SL 49 mm, female.
16 Paratypes: AMSA/P 1056–1071
Collector: G. Bell-Cross, 1963.
Type locality: Mwekera Fish Farm about eight miles above confluence of Mwekera and Kafue rivers.
Reference: Jubb (1965b).
Remarks: Three paratypes are missing (Oct 1983), three paratypes decapitated, but other types are in reasonable condition.

***Barbus bellcrossi* Jubb 1964**

Holotype: AMG/P 1051, SL 40 mm, male.
3 Paratypes: AMG/P 1052–1054.
Collector: G. Bell-Cross, 14 April 1962.
Type locality: Nyakaseya, Upper Zambezi River.
Reference: Jubb (1964b).
Remarks: Holotype and two paratypes in good condition, one paratype decapitated. Six topotypes (AMG/P 1714) also present.

***Barbus bernardcarpi* Jubb 1958**
Synonym of: Barbus poechii Steindachner 1911: Greenwood (1962b).
3 Paratypes: AMG/P 309, SL 72–82 mm (Shangombo);
3 Paratypes: AMG/P 310, SL 72–89 mm (Kabuta);
3 Paratypes: AMG/P 311, SL 62–76 mm (Nampini).
Collector: Bernard Carp Expedition. July 1949, August 1952.
Type locality: Kabuta, Chobe River, Upper Zambezi River system; Nampini, Zambezi River; Shangombo, Mashi (Cuando) River.
Reference: Jubb (1958); Greenwood (1962b).
Remarks: The holotype of this species is in the J. L. B. Smith Institute of Ichthyology, Grahamstown. The paratypes are all in good condition.

***Barbus brevipinnis* Jubb 1966**
Holotype: AMG/P 1715, SL 46 mm, female.
20 Paratypes: AGM/P 1716–1735.
Collector: Provincial Fisheries Institute, Lydenburg.
Type locality: Sabi River, Incomati River system, Pilgrims Rest District.
Reference: Jubb (1966).
Remarks: Holotype and paratypes in good condition. Jubb (1966) gave incorrect registered numbers of holotype and paratypes (1072–1092).

***Barbus erubescens* Skelton 1974**
Holotype: AMG/P 2424, 84 mm SL, male.
21 Paratypes: AMG/P 2425;
2 Paratypes: AMG/P 2426;
2 Paratypes: AMG/P 2427;
2 Paratypes: AMG/P 2428;
12 Paratypes: AMG/P 2429.
Collectors: P. H. Skelton, A. Coetzer, 8 December 1973.
Type locality: Suurvlei River, Olifants River system, western Cape Province, South Africa 32° 38′ 56″S, 19° 12′ 21″E.
Reference: Skelton (1974).
Remarks: Holotype and paratypes in good condition. Other paratypes lodged in the British Museum (Natural History), London; Koninklijk Museum voor Midden Afrika, Tervuren and J. L. B. Smith Institute of Ichthyology, Grahamstown.

***Barbus tangandensis* Jubb 1954**
37 Paralectotypes: AMG/P 438.
Collector: R. A. Jubb, April 1952.
Type locality: Tanganda River about 5 miles east of its confluence with the Sabi at a spot where the water ran swiftly over a rocky bottom.
References: Jubb (1954); Greenwood (1962a).
Remarks: Jubb (1954) mentioned the original number of specimens examined to be "some 150". The AMG specimens are labelled as "Paratypes" but are, in fact, Paralectotypes as Greenwood (1962a) designated a lectotype (BMNH 1951.8.27 : 29). The British Museum collection includes four other paratypes (BMNH 1951.8.27:25–28) one of which is not a *B. tangandensis* specimen (it is probably a *B. viviparus*, pers. obs.). The Albany Museum

series is derived from two collections. One refers to an early Catalogue card F438 recorded in Jubb's handwriting which consisted of one specimen of 41 mm plus 10 more down to 23 mm. The second refers to an early Catalogue number (F538); the card, however, is missing.

***Barbus (Pseudobarbus) burchelli* A. Smith 1841**
Neotype: AMG/P 7223A, SL 102 mm, male: Skelton (1980, in prep.)
Collector: S. Thorne, 13 December 1978.
Type locality: Tradouw River, 33° 56′ 50″S, 20° 42′ 39″E, Breede River system, south-west Cape Province, South Africa.
References: A. Smith (1841); Skelton (1980, in prep.).
Remarks: It is not known which specimens A. Smith used for the original description of *Barbus (Pseudobarbus) burchelli*. This neotype was selected and designated by Skelton (1980) in a detailed taxonomic revision of the species which is in preparation for publication.

***Labeo lunatus* Jubb 1963**
Holotype: AMG/P 652, SL 244 mm, (sex not determined).
7 Paratypes: AMG/P 653.
Collector: R. A. Jubb, August 1959.
Type locality: 23 miles above Victoria Falls, Zambezi River.
Reference: Jubb (1963).
Remarks: Jubb (1963) mentions that a "metatype" was presented to the British Museum (Natural History), London. The holotype and paratypes are in good condition. The registered number was given incorrectly by Reid (1985) as SAM (P.F.) 652.

***Labeo molybdinus* Du Plessis 1963**
Holotype: AMG/P 1708, SL 218 mm, male.
Collector: S.S. du Plessis, November 1958.
Type locality: Donkerpoort Dam on the Klein Nylrivier, near Nylstroom, Transvaal.
Reference: Du Plessis (1963).
Remarks: Holotype in good condition. Two paratypes in the collection of the Transvaal Museum, Pretoria. The registered number of the holotype was given incorrectly by Reid (1985) as SAM (P.F.) 1708.

***Varicorhinus pungweensis* Jubb 1959**
4 Paratypes: AMG/P 851–854.
Collector: R. A. Jubb, May 1958.
Type locality: 18° 24′S, 32° 58′E, Pungwe River, Inyange district, Southern Rhodesia.
Reference: Jubb (1959).
Remarks: Holotype in J. L. B. Smith Institute of Ichthyology, Grahamstown. Paratypes in moderate-poor condition, largest dissected from left side in branchial region with left operculum missing. Three small specimens of unknown provenance are included with the paratypes.

ORDER SILURIFORMES

FAMILY BAGRIDAE

***Gephyroglanis barnardi* Skelton 1981**

Synonym: Austroglanis barnardi: Skelton *et al.* (1984).
Holotype: AMG/P 7647(a), SL 68.5 mm, male.
7 Paratypes: AMG/P 893 (2 cleared and stained);
14 Paratypes: AMG/P 1369;
3 Paratypes: AMG/P 1879 (4 cleared and stained).
Collector: K. C. D. Hamman and S. C. Thorne, 3 September, 1979; F. L. Farquharson, 7 April 1967; K. van Rensburg, 17 March 1965.
Type locality: Noordhoeks River at roadbridge, 32° 42′ 15″S, 19° 03′ 59″E, tributary of Olifants River, Cape Province, S.A.
Reference: Skelton (1981); Skelton *et al.* (1984)
Remarks: Holotype and paratypes in good condition, some paratypes are dissected. Paratypes also lodged in British Museum (Natural History), London; United States National Museum, Washington; National Museum of Natural History, Paris; J. L. B. Smith Institute of Ichthyology, Grahamstown; and the South African Museum Collection (in Albany Museum, Grahamstown).

FAMILY AMPHILIIDAE

***Amphilius laticaudatus* Skelton 1984**

Holotype: AMG/P 5815(A), SL 51.5 mm, female.
2 Paratypes: AMG/P 5816.
Collector: G. Bell-Cross, 6 August 1972; 15 August 1972.
Type locality: Buzi River at bridge on Inchopo to Lourenço Marques road, Mozambique, 19° 55′S, 34° 15′E, also 19 km above new Revue River bridge, Revue River, Buzi River system, Mozambique, 19° 10′S, 33° 15′E.
Reference: Skelton (1984).
Remarks: Holotype and paratypes in good condition.

***Amphilius cryptobullatus* Skelton 1985**

7 Paratypes: AMG/P 8443 (2 cleared and stained).
Collector: E. K. Balon and D. Stewart; 18 November 1970.
Type locality: Luongo River, Upper Zaire system, above and at Route 74 crossing, 10° 11′S, 29° 43′E, Zambia.
Reference: Skelton (1985).
Remarks: The holotype and further paratypes are in the Royal Ontario Museum, Toronto; paratypes are lodged in the British Museum (Natural History), London; the United States National Museum, Smithsonian Institution, Washington DC; and the J. L. B. Smith Institute of Ichthyology, Grahamstown.

FAMILY CLARIIDAE

***Clariallabes platyprosopos* Jubb 1964**

Holotype: AMG/P 1050, SL 258 mm, female.
Collector: T. E. Davidson, 1955.

Type locality: Upper Zambezi River about 15 miles above the Victoria Falls, Rhodesia.
Reference: Jubb (1964a).
Remarks: Described from the holotype only. The head of this specimen is almost severed from the body and the left gill arches are removed.

FAMILY MOCHOKIDAE

***Chiloglanis bifurcus* Jubb and Le Roux 1969**
Holotype: AMG/P 996, SL 68 mm, male.
6 Paratypes: AMG/P 997;
3 Paratypes: AMG/P 1365.
Collector: I. G. Gaigher, 14 September 1965.
Type locality: Crocodile River, Incomati River system, Montrose farm, Nelspruit district.
Reference: Jubb and Le Roux (1969).
Remarks: Holotype and paratypes in good condition, five paratypes dissected.

***Chiloglanis carnosus* Roberts and Stewart 1976**
1 Paratype: AMG/P 2741.
Collectors: T. R. Roberts, and D. J. Stewart, 4–6 August or the 12 July, 1973.
Type locality: Near village of Inga a few kilometres upstream and on the opposite side of the river (Zaire) from the Inga hydroelectric dam. Lat. 5° 27.5′S, Long. 13° 36′E; about 4–5 km upstream from Kinganga. Lat. 5° 16′S, Long. 13° 47′E; near Inga hydroelectric dam. Lat. 5° 31.5′S. Long. 13° 37.5′E; Near Tadi, about 50 km downstream from Luozi. Lat. 5° 14′S, Long. 13° 56′E.
Reference: Roberts and Stewart (1976).
Remarks: Specimen in good condition. Presented to Albany Museum on exchange by Museum of Comparative Zoology, Harvard, U.S.A. (ex. MCZ 50465).

***Chiloglanis emarginatus* Jubb and Le Roux 1969**
Holotype: AMG/P 953, SL 57.5 mm, female.
9 Paratypes: AMG/P 954.
Collector: I. G. Gaigher, 15 May 1967.
Type locality: Lekkerloop River, tributary of the Komati River of the Incomati River system, on the farm Vergelegen, Carolina district.
Reference: Jubb and Le Roux (1969).
Remarks: Holotype and paratypes in good condition. Three topotypes are also included in the Albany Museum collection (AMG/P 1747).

***Chiloglanis paratus* Crass 1960**
1 Paratype: AMG/P 886.
Collector: T. F. Elphick, 28 March 1958.
Type locality: Concrete wall of Pongola River barrage, altitude 1000 ft (31° 30′S, 27° 23′E).
Reference: Crass (1960).
Remarks: Specimen in good condition. This paratype taken from Crocodile River, eastern Transvaal. The holotype and other paratypes of *C. paratus* are in the Natal Museum collection (NMP 1408 Type No. 1154) housed at present in the Albany Museum.

ORDER CYPRINODONTIFORMES

FAMILY APLOCHEILIDAE

***Nothobranchius furzeri* Jubb 1971**
Holotype: AMG/P 1239, SL 44 mm, male.
9 Paratypes: AMG/P 1240.
Collector: W. Warne, 12 January 1969.
Type locality: Sazale Pan approximately 21° 40′S, 31° 45′E in the Gona-re-Zhou Game Reserve, Rhodesia.
Reference: Jubb (1971).
Remarks: Holotype and paratypes are in good condition.

***Nothobranchius kirki* Jubb 1969**
Holotype: AMG/P 994, SL 37.5 mm, male.
9 Paratypes: AMG/P 995.
Collector: R. G. Kirk, 21 July 1966.
Type locality: Pool adjacent to the Likangela River which forms part of the Lake Chilwa endoreic drainage basin, Malawi.
Reference: Jubb (1969).
Remarks: Holotype and 3 Paratypes are dissected. AMG/P 995 incorporates AMG/P 784.

ORDER PERCIFORMES

FAMILY CICHLIDAE

***Chetia brevis* Jubb 1968**
Synonym: Astatotilapia brevis: Greenwood (1979).
Holotype: AMG/P 951, SL 128 mm, male.
5 Paratypes; AMG/P 952.
Collector: I. G. Gaigher, September 1967.
Type locality: the Lomati River, Barberton District, a tributary of the Incomati River which enters the sea near Lourenço Marques, Mozambique.
Reference: Jubb (1968); Greenwood (1979).
Remarks: Jubb (1968) reported on 10 paratypes in AMG/P 952 and one deposited in the British Museum (Natural History), London. Four paratypes are therefore missing. Holotype and paratypes are in reasonably good condition.

***Serranochromis meridianus* Jubb 1967**
Holotype: AMG/P 913, SL 300 mm, male.
24 Paratypes: AMG/P 914.
Collector: I. G. Gaigher, April 1967.
Type locality: the Sabie River in the region of its confluence with the Sand River, both being tributaries of the Incomati River which enters the sea near Lourenço Marques, Mozambique.
Reference: Jubb (1967b).
Remarks: Holotype dissected, two paratypes decapitated, pharyngeal bone, gill arch and

lower jaws removed from one. One paratype cleared and stained. Jubb (1967) reports that one paratype is deposited in the British Museum (Natural History), London.

FAMILY GOBIIDAE

***Silhouettea sibayi* Farquharson 1970**
Holotype: AMG/P 1100, SL 27 mm, male.
4 Paratypes: AMG/P 1101, AMG/P 1102, AMG/P 1103, AMG/P 1104.
Collector: Rhodes University Ecological Survey, 18 January 1966.
Type locality: Eastern shore of Lake Sibayi (27° 21′S, 32° 47′E).
Reference: Farquharson (1970).
Remarks: Holotype and paratypes are in moderately good condition.

ORDER SYNBRANCHIFORMES

FAMILY MASTACEMBELIDAE

***Mastacembelus vanderwaali* Skelton 1976**
Synonym: Afromastacembelus vanderwaali: Travers (1984).
Holotype: AMG/P 3183(a), SL 153 mm, male.
11 Paratypes: AMG/P 3183(b);
15 Paratypes: AMG/P 3450 (5 cleared and stained);
5 Paratypes: AMG/P 2712 (1 cleared and stained);
3 Paratypes: AMG/P 3296.
Collectors: B.C.W. van der Waal, P. H. Skelton, 29 September 1975.
Type locality: Zambezi River mainstream, at Katima Mulilo, Eastern Caprivi. Approximately 17° 30′S, 24° 16′E.
Reference: Skelton (1976); Travers (1984).
Remarks: Holotype and paratypes in good condition. Other paratypes deposited in British Museum (Natural History), London (5); American Museum of Natural History, New York (5); J. L. B. Smith Institute of Ichthyology, Grahamstown (3); Queen Victoria Museum, Harare (collection now in National Museum, Bulawayo) (14). Skelton (1976) recorded 3 paratypes with reg. No. AMG/P 3396 (=3296) in error.

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