

## Foraminifera collections in the Senckenberg Naturmuseum, Frankfurt-am-Main

CLAUDIA FRANZ\* & ALAN LORD

Mikropaläontologie I, Senckenberg Forschungsinstitut und Naturmuseum Senckenberganlage, D-60325 Frankfurt-am-Main, Germany

\*Corresponding author (e-mail: claudia.franz@senckenberg.de)

### INTRODUCTION

The collections of Foraminifera in the Senckenberg Naturmuseum are extensive and date back to the mid-nineteenth century. The oldest material is the collection of Professor O. Boettger which contains specimens from Reuss (1863). Other notable parts of the collection include the Jurassic and Cretaceous material of Adolf Franke (e.g. 1936; inventor of the Franke-slide), Franz Hecht (e.g. 1938), Helmut Bartenstein and Erich Brand (e.g. Bartenstein, 1938; Bartenstein & Brand, 1937, 1938). Further information can be found in Zilch (1939), Triebel (1967), Bartenstein & Brand (1981) and Schroeder (1989). Foraminifera are catalogued under the prefix SMF XXVII. The purpose of this note is to provide information about three large collections that have been deposited in recent years: the Kahler Collection of fusulinids, the Kristan-Tollmann Collection mainly of Triassic material, and the Bartenstein Collection of Mesozoic to Recent material.

### THE KAHLER COLLECTION

#### Franz Kahler (1900–1995) and Gustava Kahler (1906–1987)

An important collection of specimens and literature on late Palaeozoic fusulinid Foraminifera, the lifetime work of Franz and Gustava Kahler, published between 1931 and 1998 (full publication list in Flügel & Mörtl, 1997; Forke *et al.*, 1998). The collection is primarily from the Carboniferous and Permian of the Alps (Austria, Italy, Slovenia), supplemented by published material from Spain, Greece, Turkey, Iraq and Iran. Unpublished material includes collections from Hungary, Norway (Bear Island), the Himalayas, Tibet, China, Japan, South America (Bolivia, Colombia, Peru) and North America (Canada, Kansas). In total there are over 5300 numbered thin-sections and types for 18 species and subspecies.

### THE KRISTAN-TOLLMANN COLLECTION

#### Edith Kristan-Tollmann (1934–1995) and Alexander Tollmann (1928–2007)

The collection primarily reflects Edith Kristan-Tollmann's work on Foraminifera from the Triassic and Lower Jurassic and also contains a small amount of material published by her husband Alexander on the Neogene of Austria (full publication list for AT in Lein, 2007). Edith Kristan-Tollmann published extensively not only on Foraminifera but also on ostracods, echinoderms (holothurians, micro-crinoids) and calcareous nanofossils (full publication list in Lobitzer, 1996). Published foraminifera include the genera *Variostoma*, *Diplotremina*, *Plagiostomella*, *Duostomina*, *Asymmetrina* from the Triassic (1960) and *Scyphodon*, *Callonina* and *Nephrosphaera* from the

Indonesia, Papua-New Guinea, Australia and New Zealand, with discussions of taxonomy and distribution patterns throughout Tethys. A number of publications cite material as deposited in 'Sammlung Kristan-Tollmann, Geologisches Institut der Universität Wien' but this is not correct and the specimens were, in fact, retained as a private collection. The Kristan-Tollmann Collection is currently being accessed into the Senckenberg Foraminifera Collections.

### THE BARTENSTEIN COLLECTION

#### Helmut Bartenstein (1914–2010)

Bartenstein published in Senckenberg publications for seventy years (1935–2005); see Malz (2011) and Malz & Lord (2011). Most, but not all, of Helmut Bartenstein's material, mainly on Mesozoic foraminifera, especially lenticulinids, is deposited in the Senckenberg; however, for example, the Lower Cretaceous of Trinidad material published between 1957 and 1986 is deposited in the Naturhistorischen Museum, Basel. In 2005 Bartenstein deposited all his extensive unpublished material in Senckenberg, which includes Mesozoic, Cenozoic and Recent foraminifera of western and central Europe, Mediterranean Sea, Red Sea, Phillipines, Australia, Trinidad and USA.

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### CONTACT

For access to the collections contact Claudia Franz (claudia.franz@senckenberg.de) or Dr Volker Wilde (volker.wilde@senckenberg.de).

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**SPECIFIC QUERIES (SEE Q? IN MARGINS)**

- Q1. Should there be a Kristan-Tollman, 1971 ref. to match this?
- Q2. Does this match the Kristan, 1957 reference currently uncited?
- Q3. Currently uncited in the text – but see previous comment
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