

DEUTSCHES ENTOMOLOGISCHES INSTITUT: ORIGIN, HISTORY AND PRESENT

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ABSTRACT.—The history and origins of the Deutsches Entomologisches Institut (German Entomological Inst.) are presented, together with an overview of its current size and status. Notes are given on the former researchers and directors of the Institute, and on development of the library and collections.

KEY WORDS: biography, entomologists, history, libraries, museums.

The Deutsches Entomologisches Institut (DEI), or German Entomological Institute, was founded in 1886 by G. Kraatz, in Berlin, Germany, and originally called the German Entomological National Museum (Deutsches Entomologisches National Museum). Kraatz was a well-known coleopterist and an active collector of entomological literature. His aim was to establish an institution, which should be open to all entomologists, professionals as well as amateurs. Here they would get information about systematic and taxonomic problems, and it should become an information center for all entomological literature problems. The foundations of the DEI were Kraatz's great insect collection, his large entomological library with many papers from the 18th and 19th centuries, and monetary assets of 60,000 Reichsmarks, a considerable sum in those days (perhaps US\$450,000 today).

In 1870, G. Kraatz made remarks about the idea for such an institute for the first time. He called upon entomologists to donate their collections and libraries for such a museum. The coleopterist and lepidopterist Lucas von Heyden was one of the first to donate his collection. During the early years, the collections and the library were provisionally housed in several apartments in Berlin. Later on, Kraatz bought a building in the Thomasius Strasse so the museum would have sufficient space.

The acquaintance of Kraatz with Walter Horn, and Horn's working in the museum, was decisive for the further fate of the institut. Horn was a physician and a coleopterist, but first of all he had very concrete and progressive concepts about the aims and problems of an entomological museum. He suggested that Kraatz buy land in Berlin-Dahlem, on which a new building for the

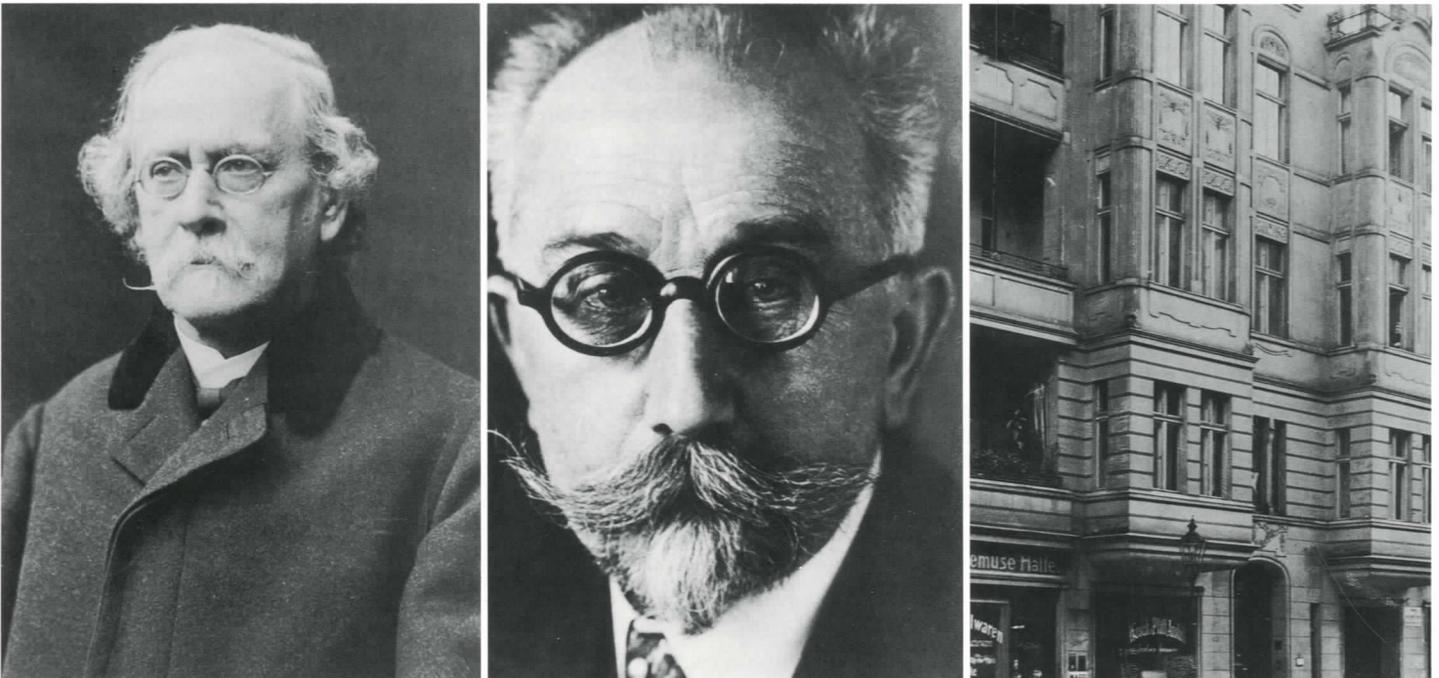


Fig. 1-3. Foundation of the DEI: 1) G. Kraatz (1831-1909), the founder of the DEI. 2) W. Horn (1870-1939), the second director. 3) The first building of the institute in Berlin, Thomasius Strasse (1890s-1909).



Fig. 4-5. Early buildings of the DEI: 4) The building in Berlin-Dahlem (1910-1943). 5) The "exile" of the institute to Blücherhof, Mecklenburg (1943-1950).

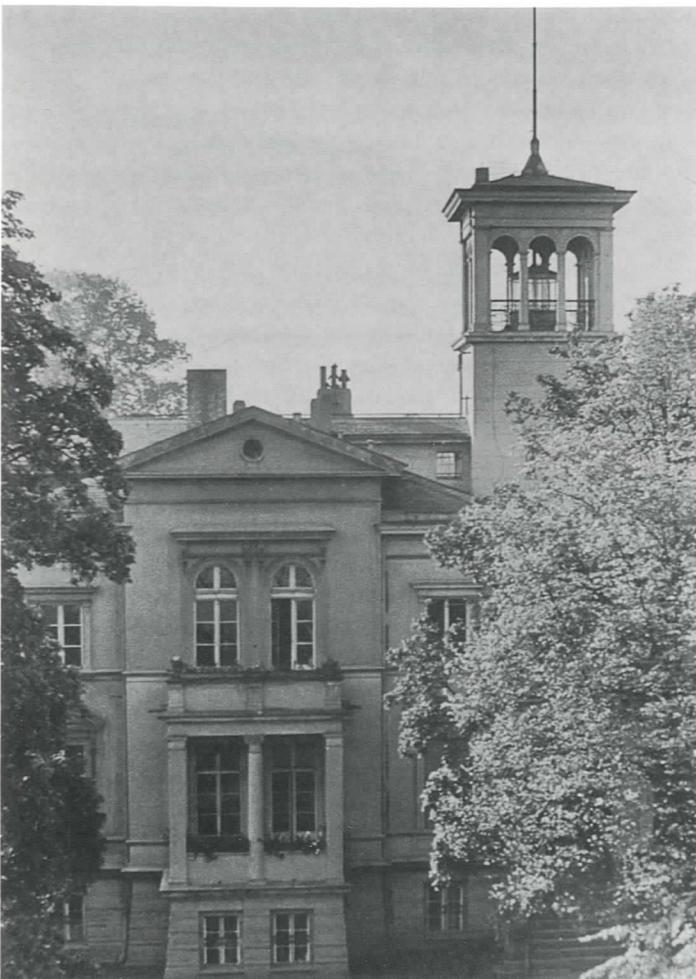


Fig. 6. The building of the institute in Berlin-Friedrichshagen (1950-1964).

museum could be built. Two years before the new building was finished (1911), Kraatz died and W. Horn became director. In 1920, Horn changed the name "Museum" into "German Entomological Institute". This change indicated already the somewhat modified aim of the institute, one of the most important tasks being the further development of the library. Horn recognised

that only an intensive international exchange of literature could be the base for the expansion of the library. Such an exchange is possible only with one's own publications. This is why he established several journals after 1911: *Entomologische Mitteilungen*, *Arbeiten über morphologische und taxonomische Entomologie*, *Arbeiten über physiologische und angewandte Entomologie*, and *Supplementa Entomologica*. In exchange, the library obtained other journals and many books as review copies.

But the library is not only a place of literature collecting. Horn also emphasized the utilization of the literature. He began to work on a compendium of the world literature of entomology and, together with S. Schenkling, he published in 1928/29 the *Index Litteraturae Entomologicae, Serie I*, which covered all entomological literature up to 1863. In a card file he collected the literature since 1864, which was the basis for the *Serie II*, published in 1965/70.

Horn also compiled all data on the location of entomological collections and the changes in their location, because it becomes more and more difficult to locate type material, when the owners of the collections are often changing. As the result of this immense work, he published in 1935/37, together with I. Kahle, the work *Über den Verbleib entomologischer Sammlungen...*, which entomologists around the world know under the name "Horn & Kahle". In 1962, Sachtleben published additions and corrections to this work, and in 1990 a compilation of all these parts were published under the title *Collectiones Entomologicae*, together with many additions and corrections for the period up to 1960. As volume 6 of the journal *Nova Supplementa Entomologica*, an addition for the period up to 1994 was issued in early 1995.

As a card file, Horn compiled biographical dates of entomologists, and he also collected photographs of entomologists. Now the collection contains photographs of more than 3,000 persons and the card file contains dates on about 10,000 entomologists worldwide.

Horn realized also some very important ideas in the field of entomological collections and their utilization. Some of them should be noted here, because they are useful even now and in our institute they are in practical use: 1) there is only one main



Fig. 7-11. The DEI in Eberswalde: 7) Current building. 8) View of Eberswalde (1990). 9) One of the collection rooms. 10) Cabinet with insect drawers (note the color coded drawer labels, representing different faunal regions). 11) View of the DEI and the Schicklerstrasse.

collection, and there is only one place at which I can find the material of the species, genus or family; 2) the whole collection of all orders is stored in uniform cabinets and in uniform drawers; 3) the registration number of the drawer is connected with the family and not with the cabinet (this fact is very important for expansion of the collection); 4) for each order, a card file is established for the genera, and for many orders additionally also for the species; and 5) all types are noted in a card file (since 1986 we have published several parts as a "type catalogue").

During the period following World War I, with the world depression, the institute had serious financial difficulties. This is why Horn then initiated a cooperative arrangement with the *Biologische Reichsanstalt* of the city of Berlin. The contribution of the institute for that cooperation was among others, the compilation of a large collection of insect biologies, i.e., larvae, pupae, mines, etc., for study and education.

In 1939, W. Horn died and H. Sachtleben became director. During World War II, as the danger of bombardments increased, the institute was relocated to Mecklenburg outside of Berlin, an area later to be in East Germany. In 1950, it was returned to

Berlin, but not to Berlin-Dahlem because that area now belonged to the American sector of Berlin. The new domicile was a building in Berlin-Friedrichshagen, located in the Russian sector. In 1951, the institute became a part of the Academy of Agricultural Sciences. Sachtleben continued the traditions of the institute. He reestablished the interrupted international exchange of literature and founded a new journal *Beiträge zur Entomologie*. He also founded a new department for bibliography, which published the Serie II of the *Index Litteraturae Entomologicae*. Also, W. Hennig worked in the institute and in 1951 his book *Grundzüge der Phylogenie* came out.

In 1964, the institute moved to Eberswalde, near Berlin, to a building built for the Forest Academy in 1874-76. There are about 25,000 square feet for collections, library, and offices. In 1970, the institute was incorporated into the Institute of Plant Protection Research as a department. Since that time, the institute was no longer an independent institution, although the work efforts continued in taxonomy, systematics and bibliography, but the international connections and the possibilities for such contacts decreased radically.

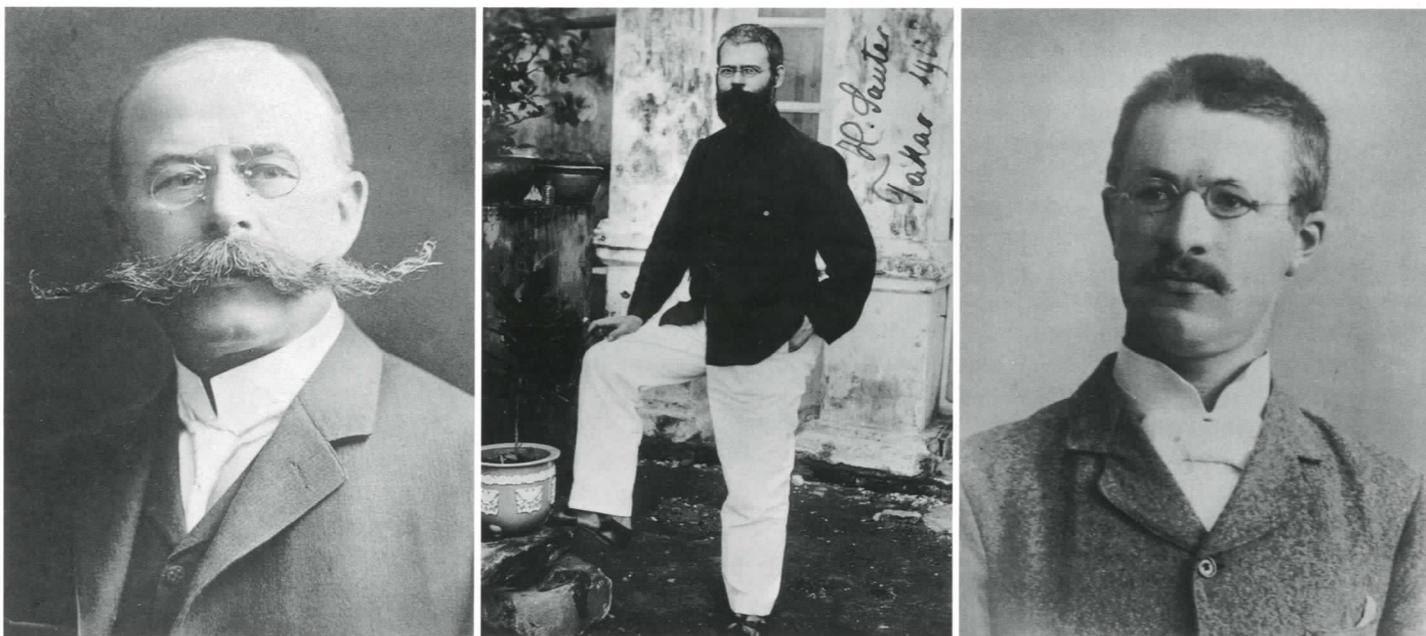


Fig. 12-14. Early workers whose collections are in the DEI: 12) O. Leonhard (1853-1929). 13) W. Sauter (1871-1948). 14) E. Strand (1867-1947).

In these years, besides the studies on taxonomy, nomenclature, bibliography, as a somewhat compensating effort for the lack of foreign contacts, the institute began to work on the project, *Insekten Fauna der Deutschen Demokratische Republic (Insect Fauna of the German Democratic Republic)*. Since this time, the institute published 55 parts in the series, and many amateur entomologists were found who became specialists not only for the local fauna, but also for some groups for all Europe. As examples I can name W. Heinicke, H. Patzak, R. Sutter, and K.-H. Mohr.

In 1990, after the German reunification, the institute was reestablished as the independent German Entomological Institute. In the future, it shall be linked with the Museum of Natural History in Berlin (Zoologisches Museum, Humboldt Universität).

THE ENTOMOLOGICAL COLLECTIONS

The collections now total about 3 million specimens, with about 250,000 species from all orders represented. They are stored in 221 cabinets, each containing 50 drawers, for a total of 11,050 drawers. For about 25,000 species, there is type material (holo-, para, lecto-, paralecto-, syntypes) in the collections.

LEPIDOPTERA

The basis of the Lepidoptera collection (52 cabinets) is the collection of central European (mainly German) species of Pfützner (1824-1902), which was bought by Kraatz. An important addition, especially for the Microlepidoptera, was the collection of M. Saalmüller (1832-1890). After these, the collections of O. Leonhard (1853-1929) and E. Pietsch (1872-1930) were incorporated. These collections also contain material from several other collectors (e.g., Staudinger, Heyne, Fassel, Niepelt, Böttcher). Some expedition material from various regions is also included in the main collection: Africa (Cameroon) (H. O. K. von Rothkirch); South America (Schnuse); Southern Africa (Bodong); Ussuri region of Russia (Kardakoff); Taiwan (H. Sauter). In the last 30 years, the collection has increased through the incorpora-

tion of several Microlepidoptera collections: J. Soffner (1889-1976), K. Ritter (1909-), and H. Patzak (1928-1988).

Because the material of the collection was revised by numerous well-known specialists, there are many types: e. g. of E. Meyrick, E. Strand (especially the Taiwan material), Prout, Bastelbürger. As a result of the studies of G. Petersen (since 1951 up to his retirement in 1989) on Tineidae, a very good collection of the Palearctic members of this family is represented.

I list here some of the more important collections of other insect orders, which are included in the institute collection:

COLEOPTERA: G. Kraatz (1831-1909), all families, especially Staphylinidae, Cetoniidae; W. Horn (1871-1939), Cicindelidae; O. Schwartz (1861-1908), Elateridae; S. Schenkling (1865-1946), Cleridae; L. von Heyden (1838-1915), all families; O. Leonhard (1853-1929), all families; E. Uhmann (1881-1968), especially Hispinae; L. Dieckmann (1920-1990), Curculionidae.

DIPTERA: B. Lichtwardt (1857-1943); L. Oldenberg (1863-1931).

HYMENOPTERA: F. W. Konow (1842-1908), Symphyta; K. Bleyl (1908-1995), Apoidea.

Other orders: G. Breddin (1864-1909), Homoptera, Heteroptera; C. Börner (1880-1953), Homoptera: Aphidae; H. von Oettingen (1878-1956), Thysanoptera.

A very important addition for all orders was the material from the Taiwan expeditions of H. Sauter and the material from the Albania Expedition 1961 of the Institute.

THE LIBRARY

The beginning of the library is not the year of the foundation of the Institute, but in 1849, when the young G. Kraatz bought some volumes from the library of W. F. Erichson (1809-1849): this was the start of very intensive collecting of entomological literature by Kraatz. He bought in Paris, and other cities with antiquarian dealers, not only many precious and very rare items



METAMORPHOSIS INSECTORUM SURINAMENSIIUM.

In qua

Erucae ac Vermes Surinamenses, cum omnibus suis
Transformationibus, ad vivum delineantur & describuntur,
singulis eorum in Plantis, Flores & Fructus
collocatis, in quibus reperta sunt;

Tum etiam

Generatio Ranarum, Bufonum rariorum, Lacertarum, Serpen-
tium, Araneorum & Formicarum exhibetur

Omnia ex auctoritate ad vivum naturalis suggestione picta atque descripta

P R I N-
T

MARIAM SIBYLLAM MERIAN.



AMSTELODAMI,

Sumptibus Anchoris, habitantis in de Kerkstraat, regio de Leyde, in Spijck-Straat, ubi
impensa de coloribus profusa. Nondum de septem Gradibus Nove
de diei Dies, in de Wachele Huis.
ANNO MDCCLV.



Fig. 15-17. One of the rare books in the DEI library, *Metamorphosis Insectorum Surinamensium* (1705): 15) M. S. Merian (1647-1717), self-portrait of author. 16) Title page. 17) One of the Lepidoptera plates from the book.

(e.g., such works as M. S. Merian and Rösel von Rosenhof), but also complete libraries (e.g., the library of G. A. W. Herrich-Schäffer (1799-1874), together with originals of the works of J. Hübner (1761-1826), which were a part of that library). After W. Horn became director, the library holdings increased very quickly due to the intensive international exchange of literature, mainly journals. Since that time, more than 90% of all newly obtained journals have been obtained by exchange agreements. The basis of current exchanges are our journals *Beiträge zur Entomologie* and *Nova Supplementa Entomologica*, a nearly complete set of all previously issued journals of our institute, and copies of important works like the *Index Litteraturae Entomologicae, Serie II, Grundzüge einer Theorie der phylogenetischen Systematik*, and *Collectiones Entomologicae*.

The library holdings now contain about 70,000 volumes (about 45,000 of which are journals) and about 115,000 reprints. In 1994, the library was receiving 804 different journals, 684 of them by exchange. Journal holdings contain in total more than 1,300 journal titles, most of them from the first volume. The library holdings include about 25,000 volumes of monographs, more than 4,300 of them issued before 1900. The oldest book held is by C. Plinii, *Secundi Historiae mundi libri XXXVII*, from 1553. Some other rare and very rare titles held are: several books from Maria Sybille Merian (e.g., *Der Raupen wunderbare Verwand(e)lung und sonderbare Blummennahrung*, 2 parts, of Graff, 1679, in Nürnberg, und 1683 in Frankfurt a. M.; *Der Rupsen Begin, Voedzel en wonderbaare Verandering*, 3 parts, issued about 1678; *Metamorphosis insectorum Surinamensium* (Amstelodami: Valk, 1705), colored and uncolored issue; *Over de voortteeling en wonderbaerlyke veranderingen der Surinaemische insecten ...* (Amsterdam: Osterwyck, 1719), also colored and uncolored); August Johann Rösel von Rosenhof, *Insectenbelustigung*, issued after 1740 (the 1st edition) and the revised edition



Fig. 18-19. Exhibitions: 18) Entrance to the exhibition room. 19) Part of the exhibition with living insects.



Fig. 20. DEI staff and technicians (left to right, front to back): FRONT ROW: 1) Dr. H. Westendorff. 2) F. Menzel. 3) J. Haller. 4) Prof. Dr. H. Dathe. 5) R. Schwebs. 6) C. Kutzscher. 7) M. Wieland. 8) H. Wehrens. SECOND ROW: 9) H. Framke. 10) R. Schulz. 11) C. Kliche. 12) J. Pohle. 13) B. Wiese. 14) B. Köseling. 15) C. Grunow. 16) D. Kroel. 17) Dr. R. Gaedike. 18) B. Storkan. 19) H. Gaedike. 20) M. Schiele. 21) J. Moebert. 22) L. Behne. BACK ROW: 23) J. Ziegler. 24) Dr. K. Rohlfien. 25) Dr. E. Groll. 26) Dr. L. Zerche. 27) Dr. A. Taeger. 28) S. Blank. 29) B. Ewald.

by Christian Friedrich Carl Kleemann (1735-1789); C. A. Clerck, *Icones Insectorum rariorum* (Stockholm, 1759); H. L. Duhamel du Monceau and M. Tillet, *Histoire d'un Insecte qui devore les grains de l'Angoumois* (Paris, 1762); D. Drury, *Illustrations of Natural History*" (London, 1770-1782); and several papers from Jacob Hübner (1761-1826), including *Sammlung auserlesener Vögel und Schmetterlinge mit ihren Namen* (Augsburg, 1793) (together with the manuscript of this book), and *Sammlung europäischer Schmetterlinge* (1805-1826), with 790 colored plates.

W. Horn also began a special collection of historical paraphernalia which illustrates the use of entomological objects, containing pieces of equipment for insect collecting and preservation, plus material concerning insect preparation, etc.

In 1991, an exhibition was opened for the public. The aim of this exhibition is to illustrate the enormous diversity in the insect world. Besides many objects from our collection, a lot of living insects are shown.

THE STAFF

The current staff of the DEI includes 10 entomologists, plus 19 technicians and preparators, 1 librarian, and 2 secretaries.

Entomologists and specialists include the following, with their curation group and families of research interest noted:
 STEPHAN BLANK (Hymenoptera: Apoidea and Symphyta)
 Prof. Dr. habil. HOLGER H. DATHE (Hymenoptera: Apoidea)
 Dr. REINHARD GAEDIKE (Lepidoptera: Microlepidoptera)
 Dr. ECKHARD GROLL (Orthoptera)
 FRANK MENZEL (Diptera: Sciaridae)
 Dr. KLAUS ROHLFIEN (Entomohistory and bibliography)
 Dr. ANDREAS TAEGER (Hymenoptera: Symphyta and Braconidae)
 Dr. MAGDALENE WESTENDORFF (Insect Microbiology)
 Dr. LOTHAR ZERCHE (Coleoptera: Staphylinidae)
 JOACHIM ZIEGLER (Diptera: Tachinidae)