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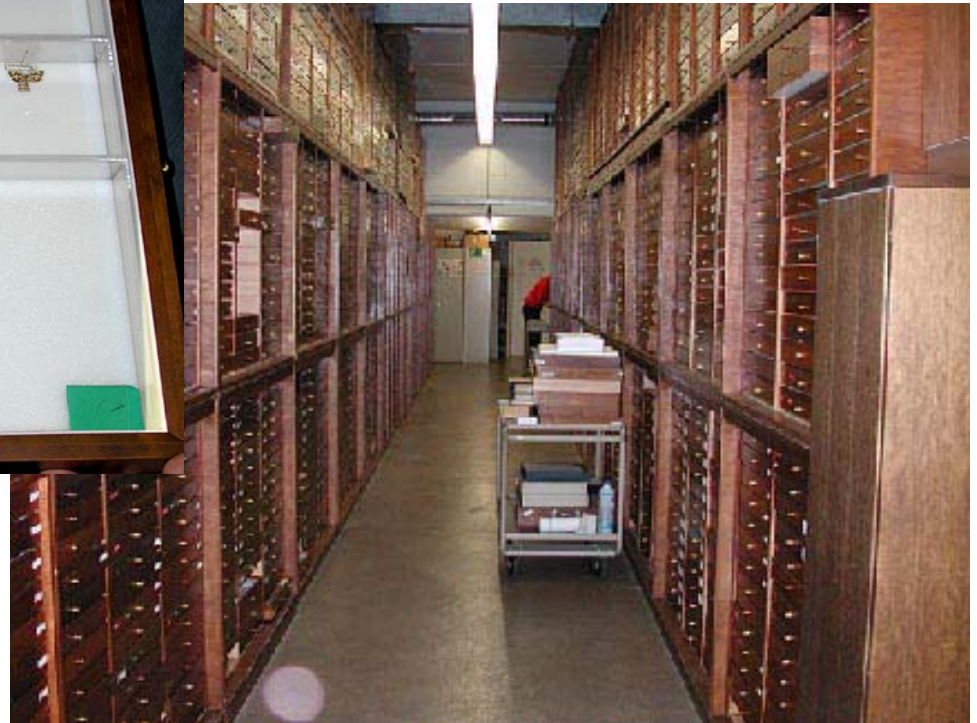
Providing effective access to collections – where to start?

D. Triebel, München



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Core problem: Large amount of vouchers to be recorded



Preconditions for starting data recording in Natural History Collections

- Preservation and order status of specimens
- Man-power (presence of curators and taxonomic specialists)
- Availability of gazettters for taxon names and geographic names

Taxonomic databases online used by BIOLOG projects

- IPNI The International Plant Names Index (→ InfoComp)
- OSF Orthoptera Species File online (→ EDIS-DORSA)
- FunIndex Database of Fungal Names (→ GLOPP)

The BIOLOG-projects: Group selection for data recording

Focus on collections of

- economical or ecological relevance
 - phytopathogenic fungi like powdery mildews
 - insects like Orthoptera or Lepidoptera (key organisms for biomonitoring)
- taxonomic relevance (types)



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GLOPP





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Recording of type specimens in German Natural History Collections

Number of type specimen records

- **EDIS-GART** ca. 10,000
- **EDIS-DORSA** ca. 8,000
- **EDIS-INGE** ca. 500
- **InfoComp** ca. 6,000

Why recording type specimens?

Value of type specimens as reference collections

- Taxon description linked with type material
 - Taxon name linked with type material
 - Natural History Collections in Germany with long tradition being storage sites for type specimens of many taxa
- However: Type-related information often not well accessible

Recording type specimens of Compositae located in German herbaria

- Transcription and entry of label data in a database
- Validation and completion of label data by checking the original description and adding information from the protologue
- Taking of 3–4 digital photographic images of the voucher
- Providing search options on the Internet



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InfoComp



Label text

Botanische Staatssammlung München I

ARCTOTIS merxmuelleri Friedr.
HOLOTYPUS

Kult. Botanischer Garten München, blühend
Mai-Juli 1980 (15.5.80)

Südafrika: Cape Prov. Gradnetz Nr.: 2916 BD
Distr.: Klein Namaqualand: Port Nolloth
sukkulenterreiches Strandveld östlich
Port Nolloth bei '5 Miles', ca 30 m.
0,5-1,0 (kult.- 1,5) m hohe, buschige
Staude.
leg. H-Chr. FRIEDRICH 8.12.1974
Nr. 498



Herbarium sheet



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Label
text

Local Database entry

Species name
Tribe
Author
Type status
Protologue reference

Collector
Collector's number
Herbarium / Collection
Continent
Country
Region

Comments
Image category



Arctotis merxmuelleri Friedrich
Arctoteae
Friedrich, H.-C.
Holotypus
Mitteilungen der Botanischen
Staatssammlung München 16,
Beiheft: 13. 1980.
Friedrich, H.-C.
498

Africa
Rep. of South Africa
Cape Province, Distr. Klein Namaqua-
land, Port Nolloth

Label/Sheet/Detail1/Detail2



Voucher



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Transcription of label data and additions from literature

Species name	Arctotis merxmuelleri Friedrich
Tribe	Arctoteae
Author	Friedrich, H.-C.
Type status	Holotypus
Protologue reference	Mitteilungen der Botanischen Staatssammlung München 16, Beiheft: 13. 1980.
Collector	Friedrich, H.-C.
Collector's number	498
Herbarium / Collection	—
Continent	Africa
Country	Rep. of South Africa
Region	Cape Province, Distr. Klein Namaqualand, Port Nolloth
Comments	—
Image category	Label/Sheet/Detail1/Detail2



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InfoComp



Label

Botanische Staatssammlung München 1

ARCTOTIS merxmuellerei Friedr.
HOLOTYPUS

Kult. Botanischer Garten München, blühend
Mai-Juli 1980 (15.5.80)

Südafrika: Cape Prov. Gradnetz Nr.:
Distrikt Klein Namaqualand: Port Nolloth
sukkulentes Strandveld
Port Nolloth bei '5 Miles', ca.
0,5-1,0 (kult.- 1,5) m hohe,
Stauke.
leg. H-Chr. FRIEDRICH 8.12.1974
Nr. 498



Detail 2



Detail 1

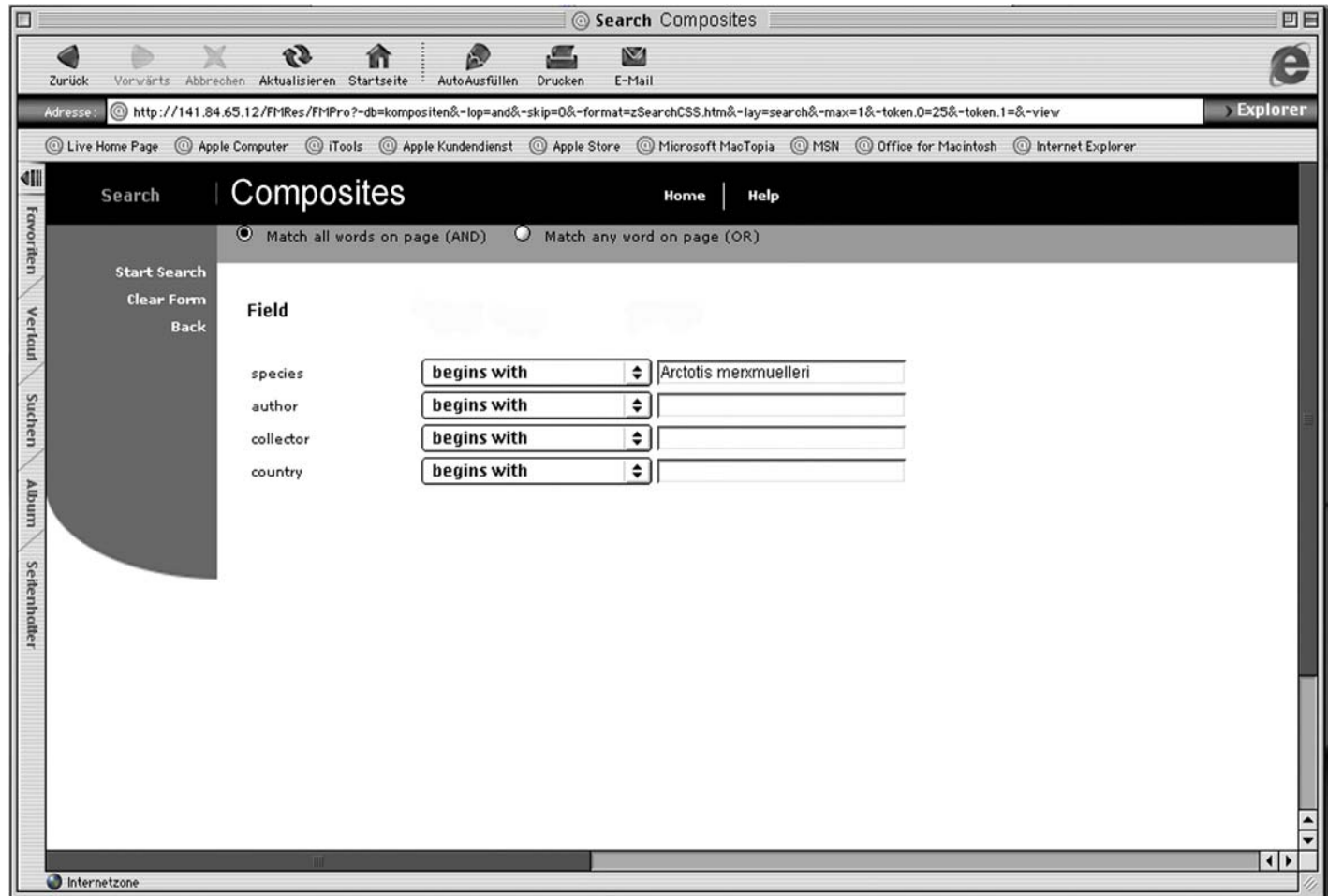
Digital
photographic
images of
a herbarium
voucher



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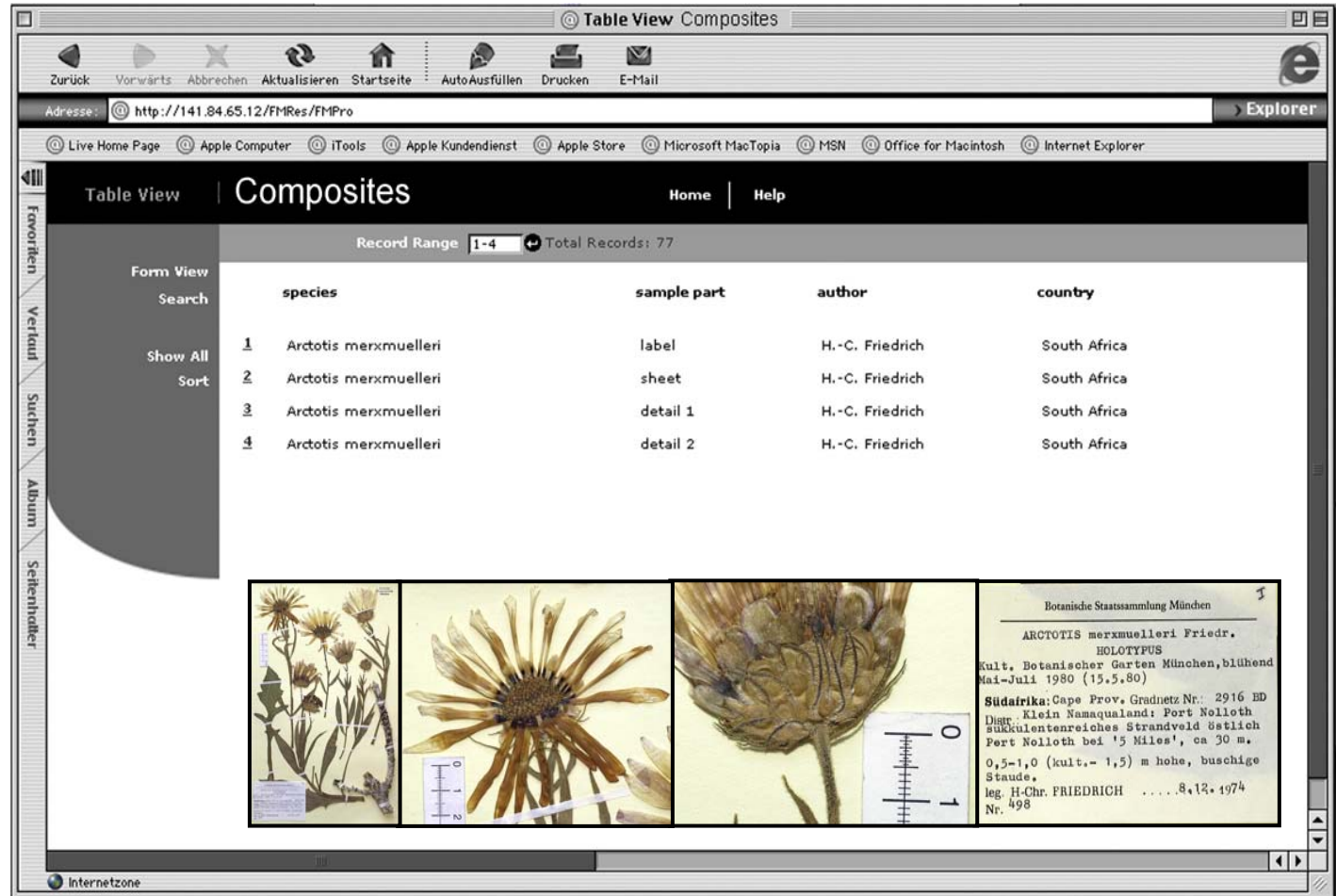


InfoComp



Online database search with currently four options

InfoComp



The screenshot shows a web browser window titled 'Table View Composites'. The address bar contains 'http://141.84.65.12/FMRes/FMPro'. The browser's menu bar includes 'Zurück', 'Vorwärts', 'Abbrechen', 'Aktualisieren', 'Startseite', 'AutoAusfüllen', 'Drucken', and 'E-Mail'. The browser's toolbar shows various icons for navigation and printing. The main content area displays a table with the following data:

species	sample part	author	country
1 Arctotis merxmuelleri	label	H.-C. Friedrich	South Africa
2 Arctotis merxmuelleri	sheet	H.-C. Friedrich	South Africa
3 Arctotis merxmuelleri	detail 1	H.-C. Friedrich	South Africa
4 Arctotis merxmuelleri	detail 2	H.-C. Friedrich	South Africa

Below the table, there are three images of dried plant specimens and a photograph of a botanical label. The label text is as follows:

Botanische Staatssammlung München

ARCTOTIS merxmuelleri Friedr.
HOLOTYPE
Kult. Botanischer Garten München, blühend
Mai-Juli 1980 (15.5.80)

Südafrika: Cape Prov. Gradnetz Nr.: 2916 ED
Distr.: Klein Namaqualand: Port Nolloth
sukkulenterreiches Strandveld östlich
Port Nolloth bei '5 Miles', ca 30 m.
0,5-1,0 (kult.- 1,5) m hohe, buschige
Staude.
leg. H-Chr. FRIEDRICH 8.12.1974
Nr. 498

Online
database
query result



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EDIS-GART



Recording type specimens of Lepidoptera located in German Natural History Collections

- Transcription and entry of label data in a collection database
- Entry of name information in a taxonomic database
- Entry of original descriptions in a reference database
- Taking of 3–4 digital images of the protologues and the type specimens
- Providing search options via Internet in cooperation with SysTax



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EDIS-GART

Type specimen
database



Butterfly types in Germany



data entry	list	locations	pictures	info		
current family	Pieridae	ID	529	specTax ID	9034	
taxon	hildebrandti		STAUDINGER	1885		
orig. combination	Callosune			Art		
current species	Colotis	hildebrandti				
museum / coll.	MNHU, Berlin					
additional information						
number	1	genus	m	condition	good. Repairs: two small pieces of alien wing material have	
preparation	<input checked="" type="radio"/> pinned and spread <input type="radio"/> pinned but not spread <input type="radio"/> in alcohol <input type="radio"/> other					
assoc. preparations						
label text	Ndi // Hildebr. [[ms white]] Danae [f] // strange var. // (Hw.) [[ms white]] Origin. [[p red]]					
type checked	<input checked="" type="checkbox"/> ok	type status	syntype		type status on label	
path of type pics	hildebrandti_Staudinger_Callosune_MNHU_3					
remarks	One of 3 existing syntypes. This is the specimen figured in the original description, pl. 23.					



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EDIS-GART



GART - Datainput - Speciesgrouptaxa			
orig. Family etc	Lycaenina	current Family	Lycaenidae
		current Subfamily	Theclinae
		current Tribe	Eumaeini
orig. Genus	Thecla	current Genus	Timaeta Johnson, Kruse &
		current subgenus	
orig. Species		current species	ganimedes (Cramer, 1775)
orig. Subspecies			ID 9021
orig. Rank		orig. Taxon Name (if known)	
Taxon Name	nobilis		
Author(s)	Herrich-Schäffer	Year	[1853] Date
Page (Name)	wrapper	ID Lit.	43001 Orig. descr. Scan(s)
Pages (Description)	pl. 14, fig. 55-56.	Type specimen Photo(s)	
Type Locality (Quote)	Surinam		
Type Locality (Additions)			
Type Locality (Country)	Surinam		
Type Material (Quote)	Species omnes in collectione regia Stuttgardtiana e Surinam		
Type Material (Additions)			
Type Status	<input type="checkbox"/> Holotype <input checked="" type="checkbox"/> Syntype <input type="checkbox"/> Lectotype <input type="checkbox"/> Neotype		
Type Material (current)	ST (1 [m], Kplr [18]49)		
Type Depository (curr.)	SMNS	Help <input checked="" type="checkbox"/> alte Angabe <input type="checkbox"/> überprüft	
Name not available	<input type="checkbox"/>	Begründung	
objective Invalidity	<input type="checkbox"/>	Begründung	
subjective Validity			
Taxonomy			
Remarks	Name attributed to Boisd.[uval] on wrapper of plate. Later cited as "Theclanobilis H-S." (Herrich-Schäffer [1858]: 77 [in the chronological list]).		

Type name database




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EDIS-GART



Literature
database

GART-LITERATURE-DATABASE

 type Zeitschriften-Artikel unveröffentlicht (z.B. Diss.) ID **43001**
 Buch Multimedia (Film, Audio, CD)
 Buch-Artikel Internetseite

author(s) Herrich-Schäffer, G. A. W.

year [1853] date of publication _____

title Sammlung neuer oder wenig bekannter aussereuropäischer Schmetterlinge.

journal _____

vol., pages, figs. [Band 1], Rhopalocera, Heft 3: pl. 11-14 (= figs. 23-60).

in book _____

edition _____ place Regensburg

publisher G. J. Manz

editor _____

series _____

ISBN/ISSN _____

internetaddress/URL _____

location, signature SMNS Ent-M

taxonomy RiodinidaeNTX(SP) LycaenidaeNTX(SP) Mesene Theope Eurygona

geography _____

keywords _____

remarks _____

added by Steiner source Original

date 04.01.2001

changed by _____

date of changing 17.08.2001

checked Neue Taxa (Spc)
 taxon. Arbeit Neue Taxa (Gen)
 taxon. Akte Neue Taxa (Fam)



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EDIS-GART

Digital photographs
of protologue and
type specimen

Current status: *Thecla nobilis* HERRICH-SCHÄFFER, 1853;
a synonym of *Timaeta ganimedes* (CRAMER, 1775)



Text and fig. of the original description:

Type specimen:



Lycaenina.

Thecla F. — *nega*. H-S. *Exot.* II. f. 51. 52. — *Surin.*
atrius. H-S. *Exot.* II. f. 53. 54. — *Surin.*
nobilis. H-S. *Exot.* II. f. 55. 56. — *Surin.*

XIV. 51. 52. *Thecla nega* Boisd. Natal.

53. 54. — *atrius* Boisd.

55. 56. — *nobilis* Boisd.

57. 58. — *punctum* m.

59. 60. — *essus* Boisd.

*Species omnes in collectione regia Stuttgardiana e
Surinam; solum f. 51. 52 e port. Natal.*

Thecla nobilis H.S.
Herrich-Schäffer f. 55. 56.
Surinam Kuhl 49.

LECTOTYPE ♀
Thecla nobilis
Herrich-Schäffer, 1853
By G. LATTAS 1993

84.



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EDIS-GART SysTax



Database
query

SysTax Datenbankabfragen: Taxon - Microsoft Internet Explorer

Adresse <http://www.biologie.uni-ulm.de/systax/daten/index.html> Wechseln zu

1- Suchmuster:

2- Datenbank:

Pflanzen Tiere

3- Start:

4- Suchergebnis:

- [Thecla](#)
- [Thecla nobilis Herrich-Schäffer, \[1853\]](#)

5- Optionen:

Taxonomie: Synonyme nein ja
Literatur nein ja
alternative Taxonomie nein ja

Einheimische Namen

Sammlungsdaten:

Merkmale

Literatur

Verbreitung **Abbildungen**

Experten **Bemerkungen**

Links **Ethnobotanik**

6- Anzeigen:

Abfrageergebnis SysTax-Datenbank

[Lycaenidae subfam. Theclinae](#)
Thecla nobilis Herrich-Schäffer, [1853]

Sammlungsdaten

- Staatliches Museum für Naturkunde, Stuttgart,
 - [Datenblatt](#)


Abbildungen

- [short description of object...](#)

Daten aus der SysTax-Datenbank
© J.R. Hoppe, E. Boos, Th. Ludwig, Universität Ulm

EDIS-GART SysTax

Query results from the SysTax database - Microsoft Internet Explorer

Data from the SysTax database 

Collection item

Staatliches Museum für Naturkunde, Stuttgart
Lycaenidae subfam. Theclinae
Thecla nobilis Herrich-Schäffer, [1853]

Herrich-Schäffer, Holotypus

leg.:

Original text of the label:
 Th. nobilis H.S. // Herr. Schaeffer f. 55. 56. // Surinam Kplr 49
 [[ms]] 84. [[ms]] Lectotype [[p]] [Wn] // Thecla nobilis // Herrich-Schaeffer, 1853 // by G. Lamas '94 [[ms]]

determinations

- **Thecla nobilis* Herrich-Schäffer, [1853] Herrich-Schäffer, 1853

pictures

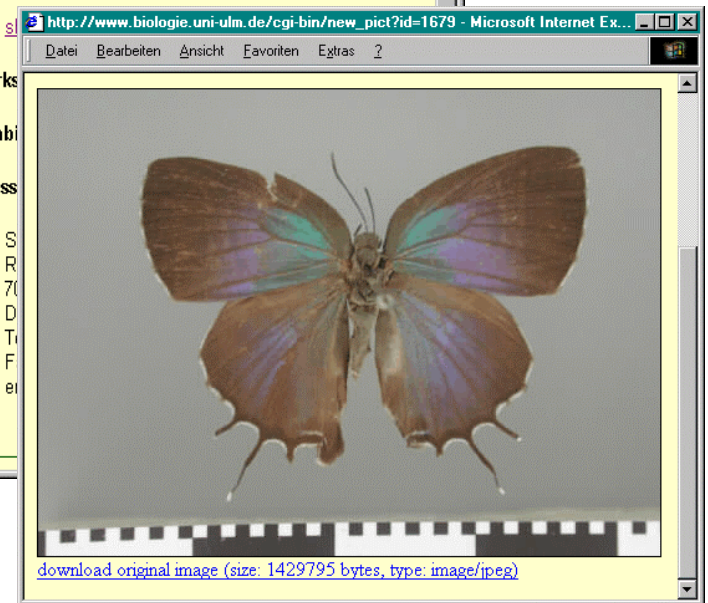
- http://www.biologie.uni-ulm.de/cgi-bin/new_pict?id=1679

remarks

availability

address

- S
- R
- 7(
- D
- Ti
- F
- er



Database
query
result



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Summary

- All BIOLOG projects recording data from public Natural History Collections have a strong thematic focus.
- All will present their data via Internet and in this way create „virtual natural history collections“.
- A majority of the projects focusses on type specimens.
- For historical reasons many types held in European institutions originate from oversea countries.
- Today the repatriation of data via the Internet is possible.



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