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university

collecting

preserving

presenting

data from

short term

projects

objects

museum

with data

long term

objects

Research: **project** orientated

object orientated

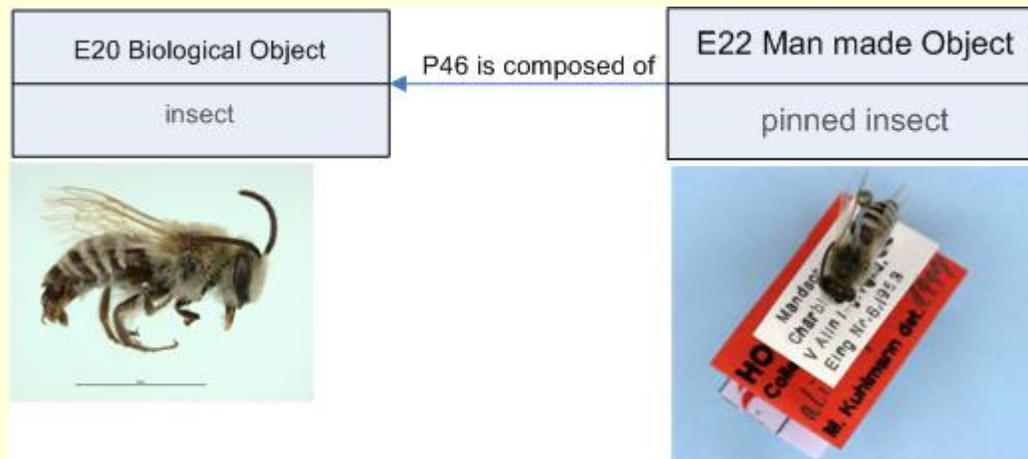
- **Vertical Information Transfer**
within biological domains:
 - molecular –organismic - ecosystem
 - (Bio-, Biodiversity- & Environmental Informatics)
 - BIOCASE- & GBIF-portals
- **Horizontal Information Transfer**
between different domains:
 - ALM [archives-libraries-museums] etc.)
 - Semantic Web

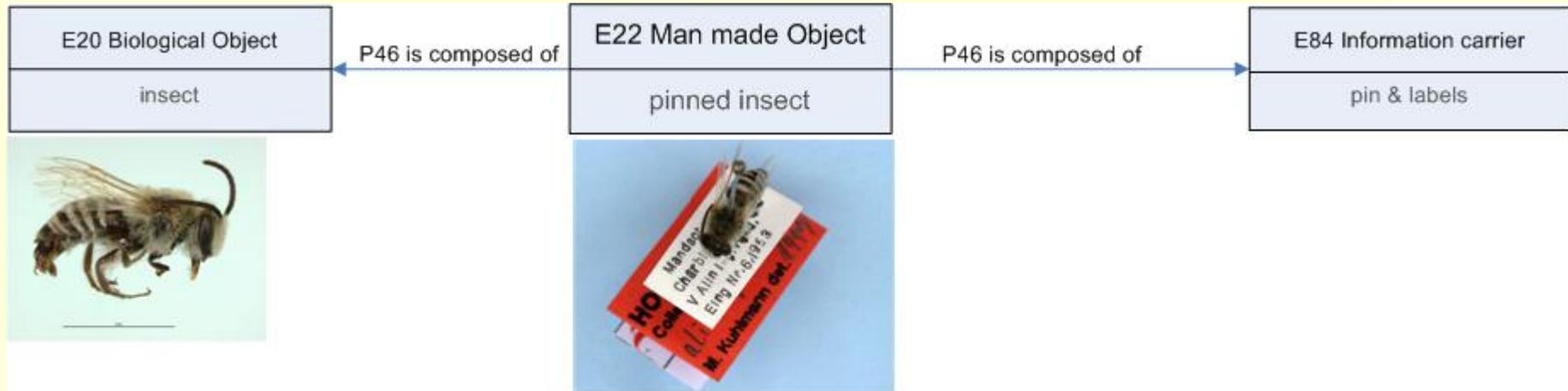


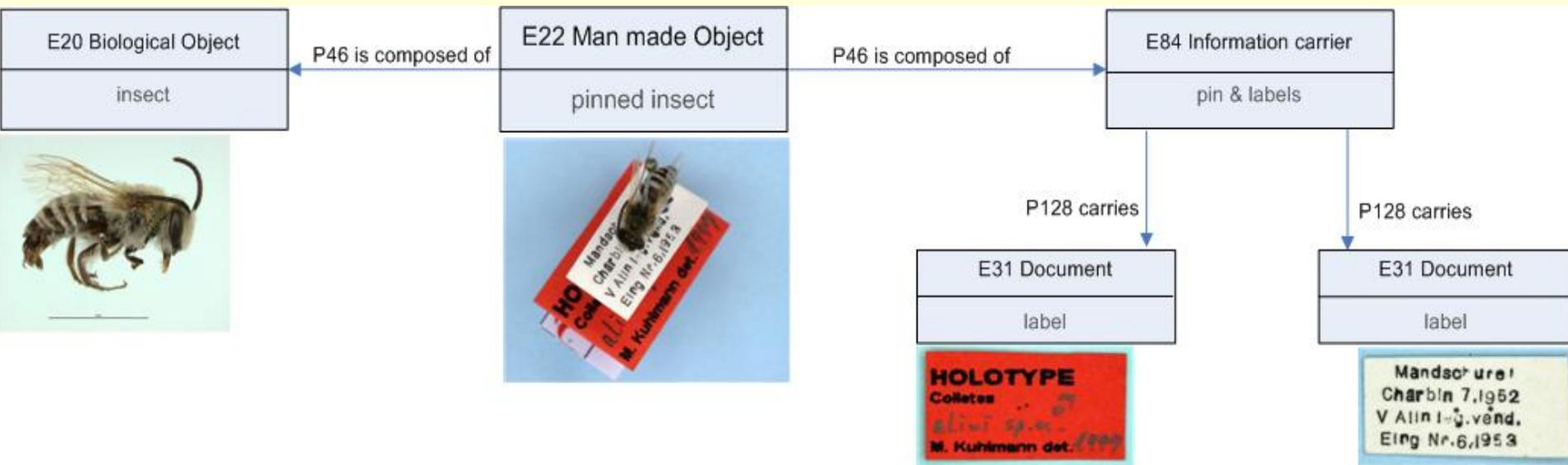
E22 Man made Object

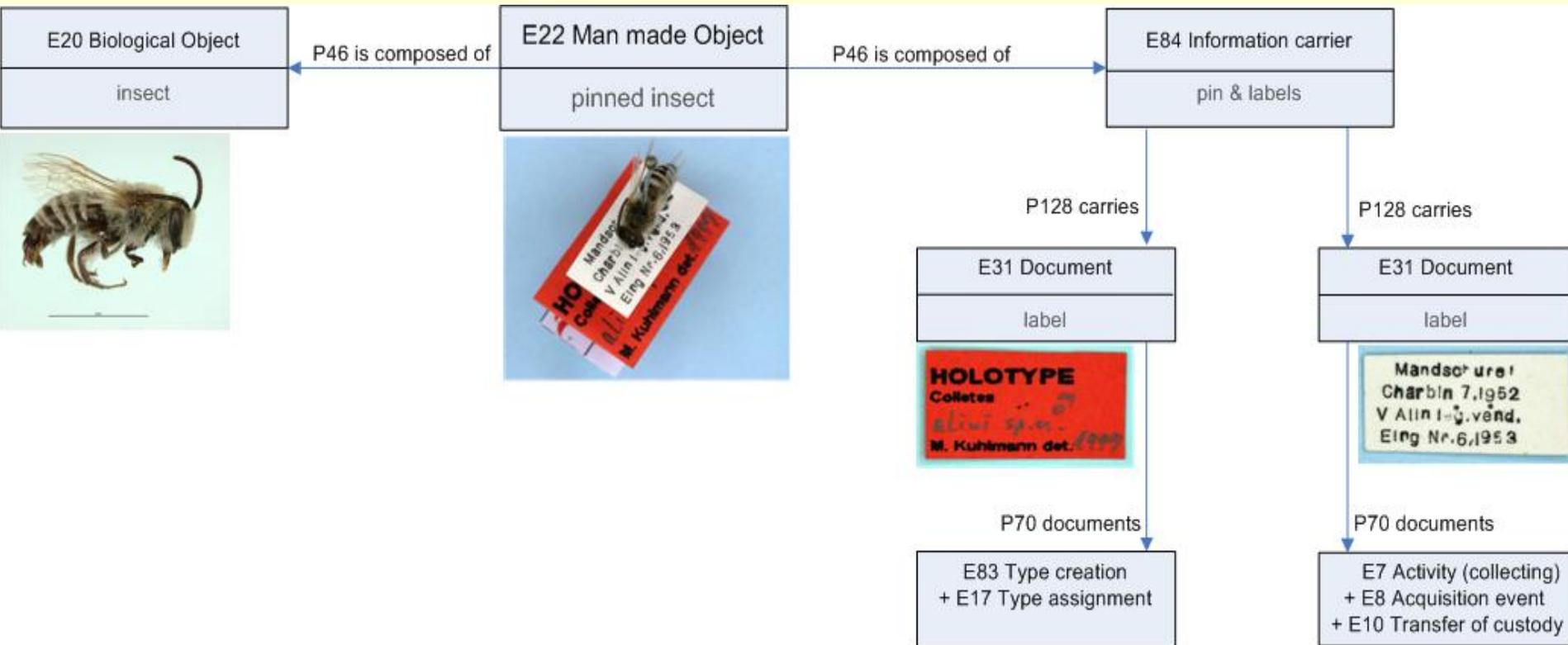
pinned insect



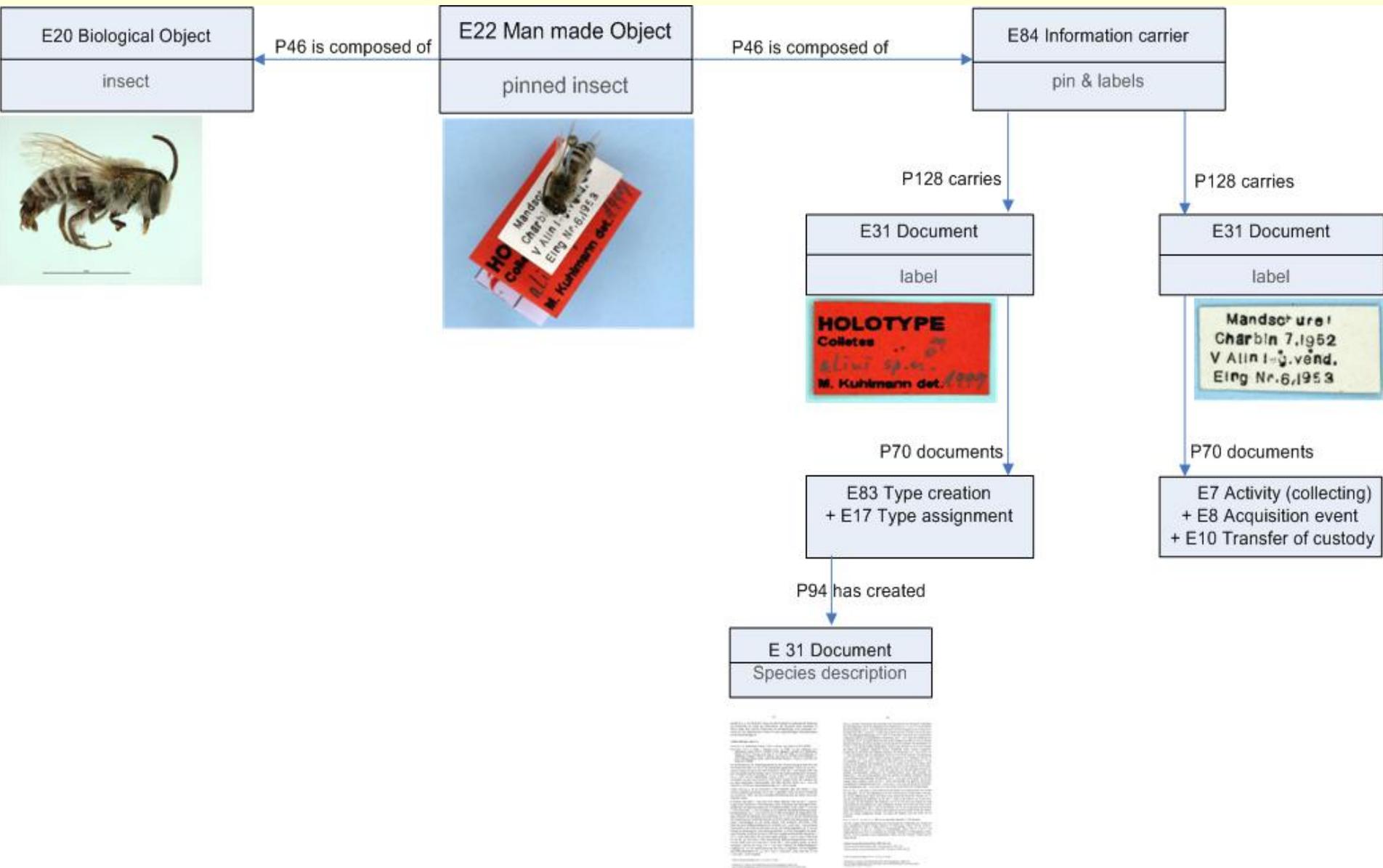




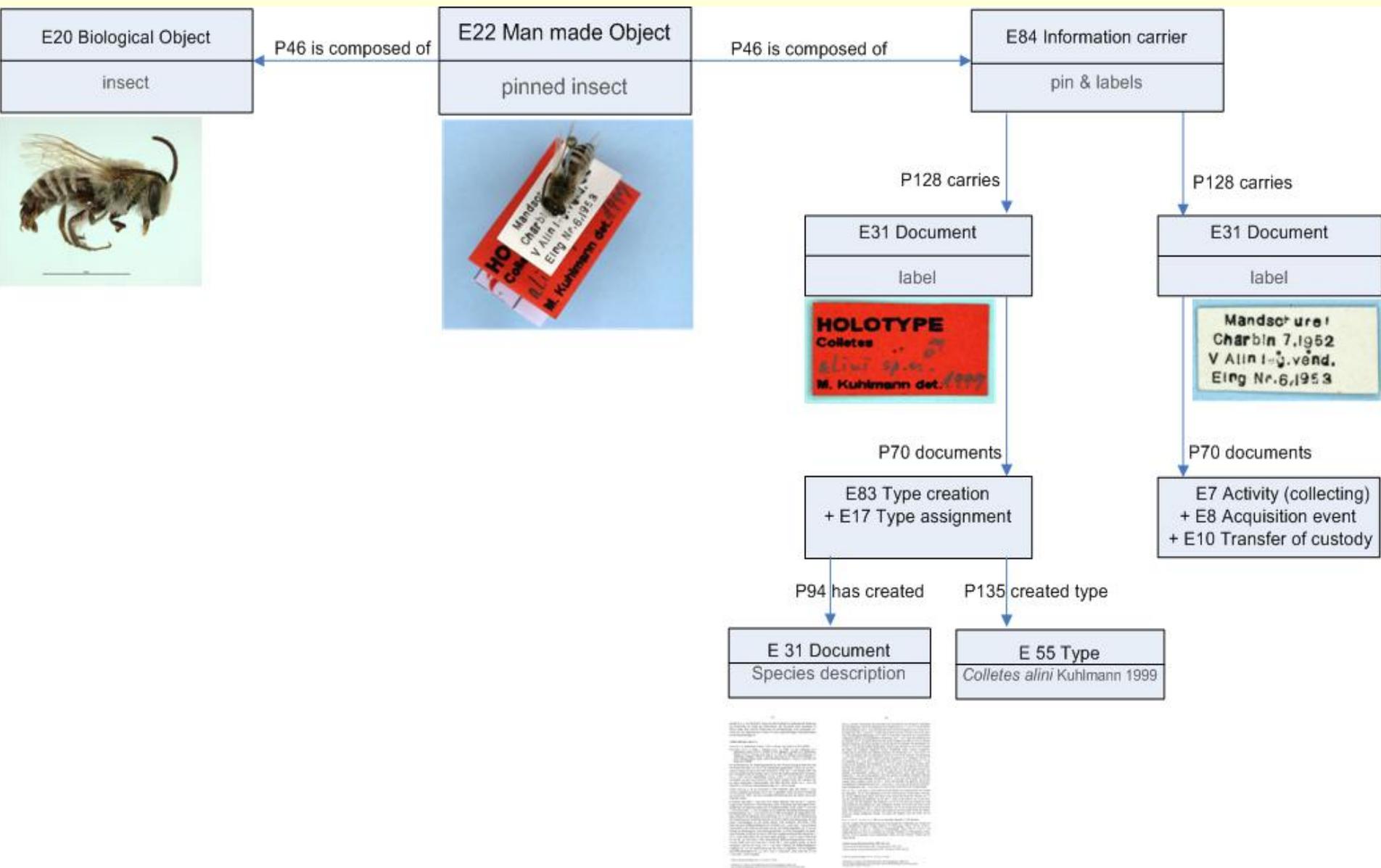




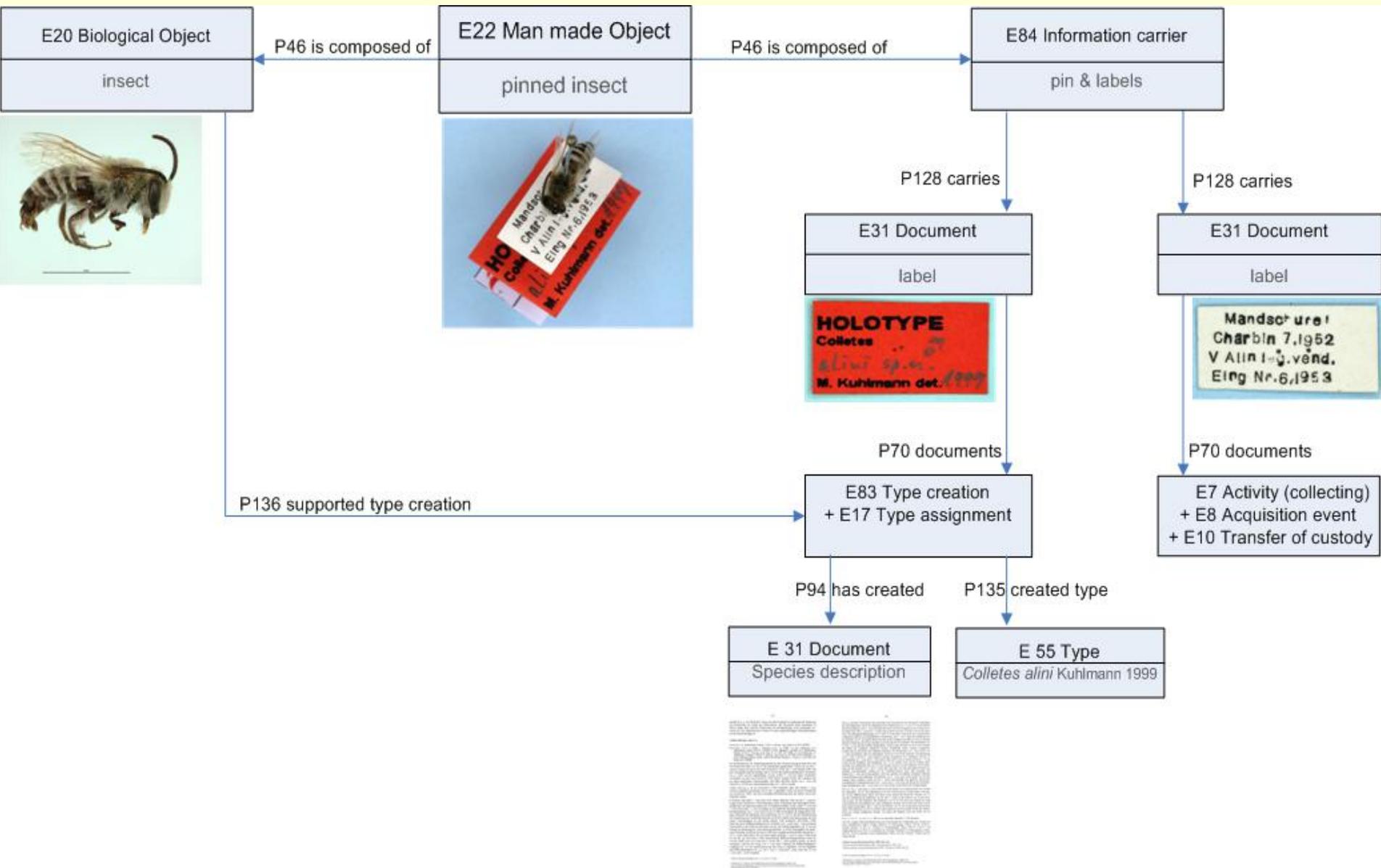
Knowledge associated with a well documented pinned insect



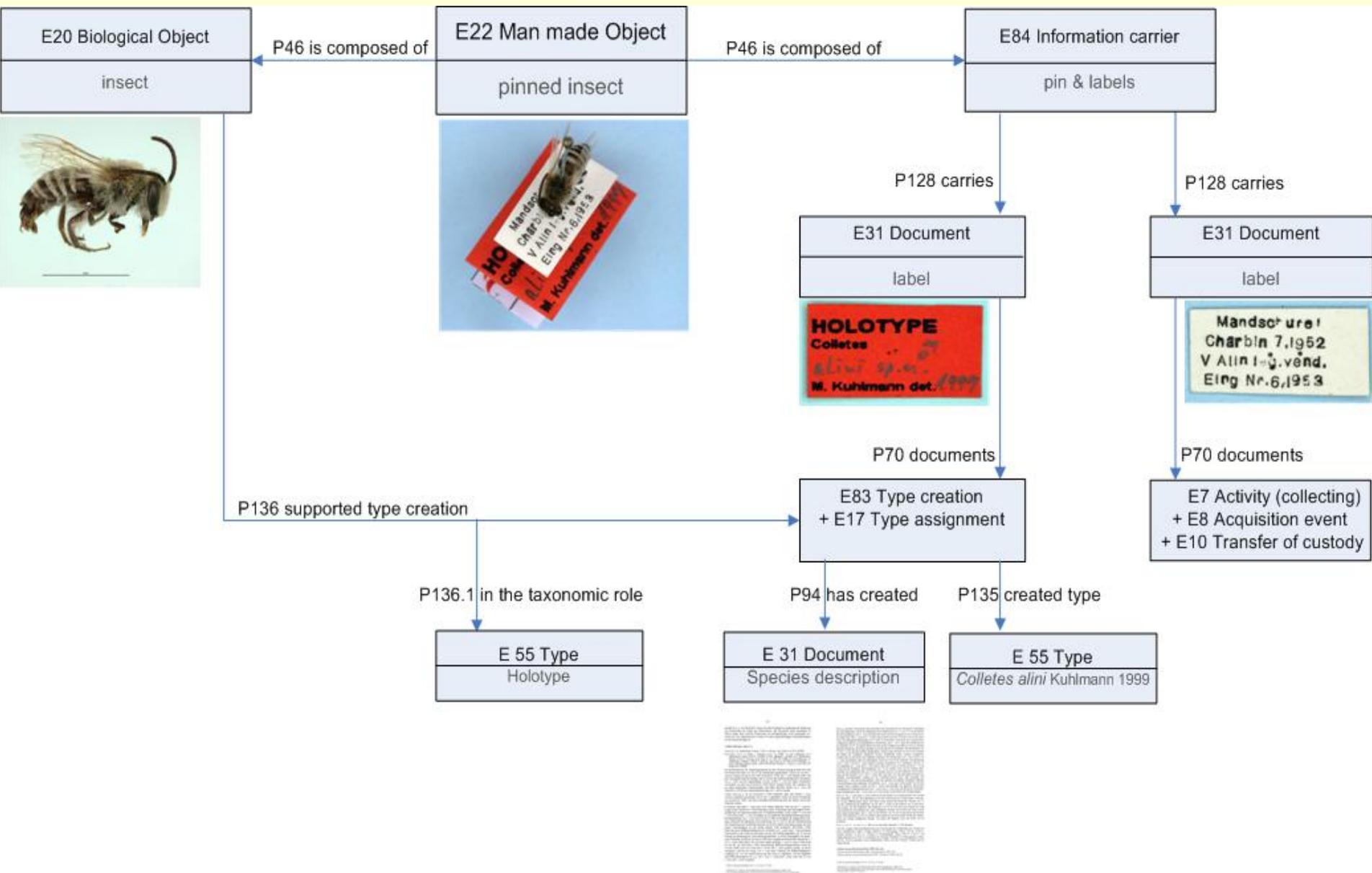
Knowledge associated with a well documented pinned insect



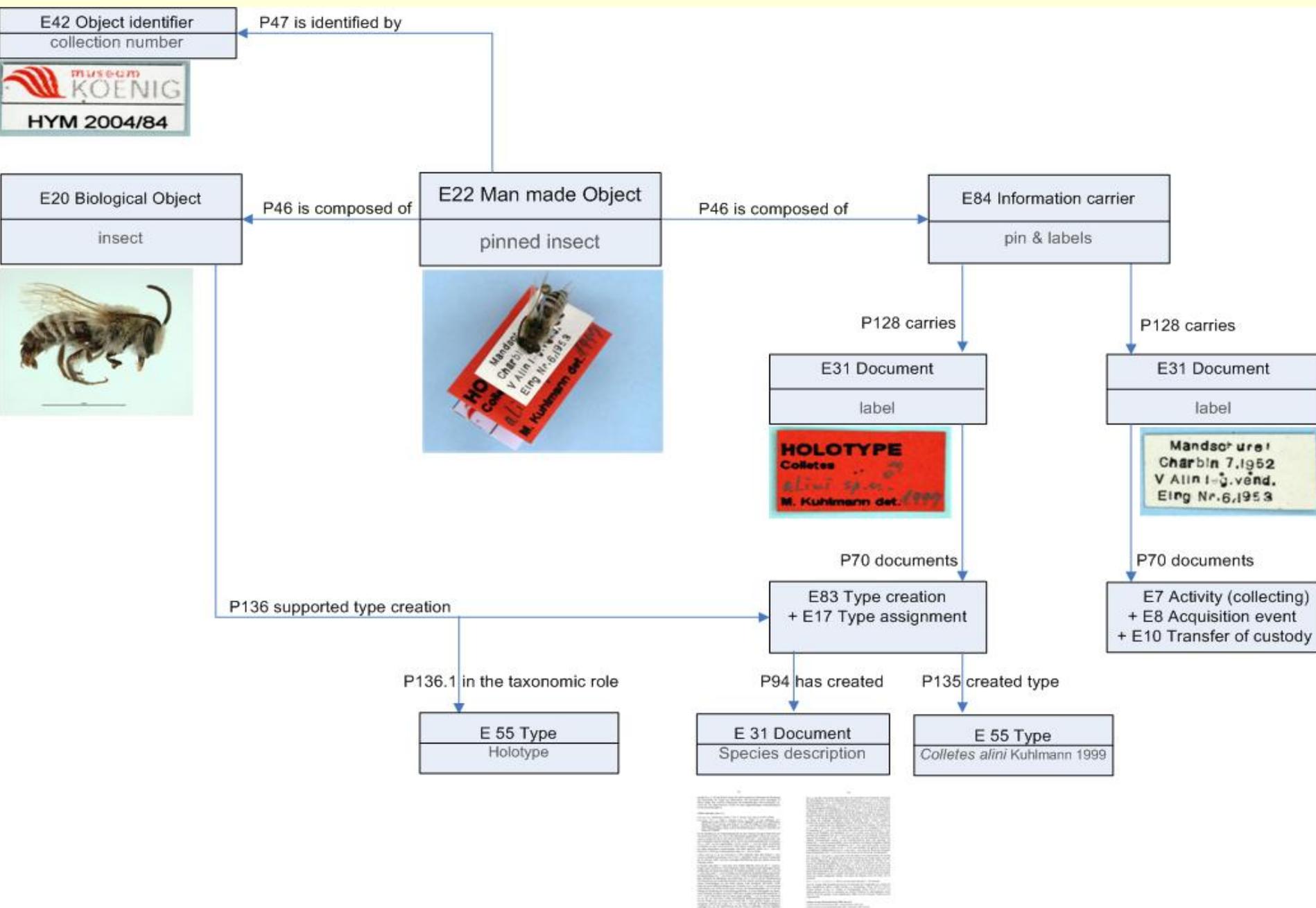
Knowledge associated with a well documented pinned insect



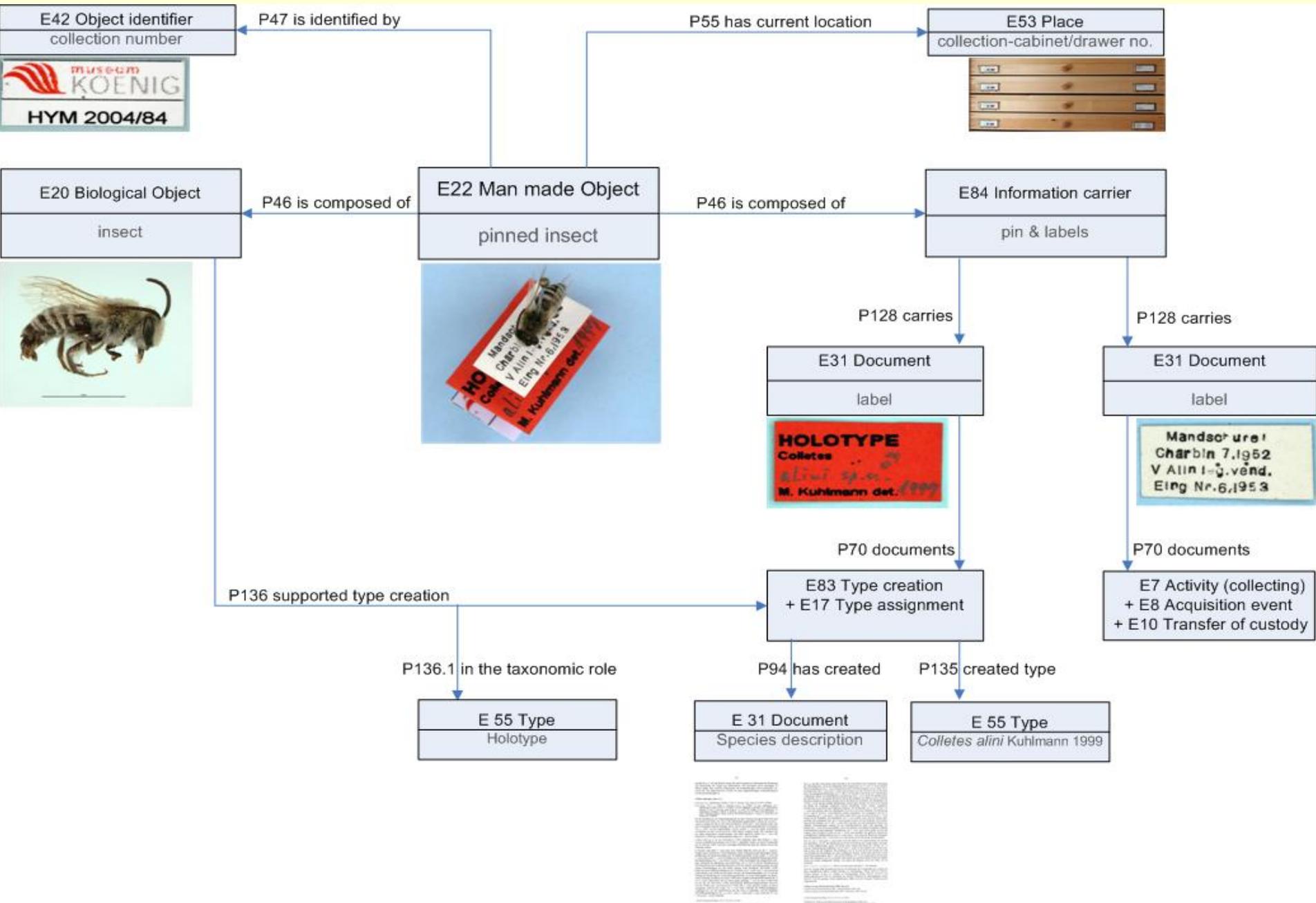
Knowledge associated with a well documented pinned insect



Knowledge associated with a well documented pinned insect



Knowledge associated with a well documented pinned insect



The screenshot displays the DORSA virtual museum interface. At the top, the 'DORSA' logo is visible. Below it, navigation links 'index', 'previous', and 'next' are present. The main content area features a large image of a brown cricket (Noctitrella plurilingua) against a blue background, with a 5 mm scale bar. To the left, a 'Labels' sidebar contains taxonomic information, including the specimen ID 'DORSA CIGnoepht1203', collection details for Thailand, and a list of individuals. Below the labels are two small images of the cricket's phallus in lateral and dorsal views. The main text area provides the scientific name 'Noctitrella plurilingua Ingrisch, 1997', its status as a holotype male, and its habitus in dorsal view. It also includes 'Locality data' (Thailand, Tak, Mae Salid, Monkrating, 30.07.1992, S. Ingrisch) and 'Depository' (Zoologisches Forschungsinstitut und Museum Alexander Koenig (ZFMK)). A copyright notice for DORSA is at the bottom.

Labels

DORSA
CIGnoepht1203

Thailand Tak MaeSalid
Monkrating 700m
1.VIII.1992 ex Herne
S.Ingrisch

Serialisation S:
1573 KW61:33.00-35.00
1574 KW61:35.00-41.00
1592 KW57:08.30-30.00
2294 D18.30.10.32.45
2324 D19.1.40.20-1.50.00

Kollegien
Noctitrella plurilingua
Ingrisch & Co.
Det. S. Ingrisch, 1997

Phallus
lateral view

Phallus
dorsal view

Crylloidea
Gryllidae
Podoscirtinae
Noctitrella plurilingua

DORSA

index . previous . next

5 mm

Noctitrella plurilingua Ingrisch, 1997
holotype male
Habitus dorsal view

Locality data:
Thailand
Tak
Mae Salid, Monkrating
30.07.1992
S. Ingrisch

Depository:
Zoologisches Forschungsinstitut und Museum Alexander Koenig (ZFMK)

Copyright © DORSA

DORSA contains full information about 16,000 specimens (incl. 2,300 primary types and 6,700 secondary types) 30,000 images and 11,000 sound files.

The DORSA virtual museum is available through the SYSTAX database infrastructure (<http://www.biologie.uni-ulm.de/systax>) and major knowledge portals such as GBIF (<http://www.gbif.org>).

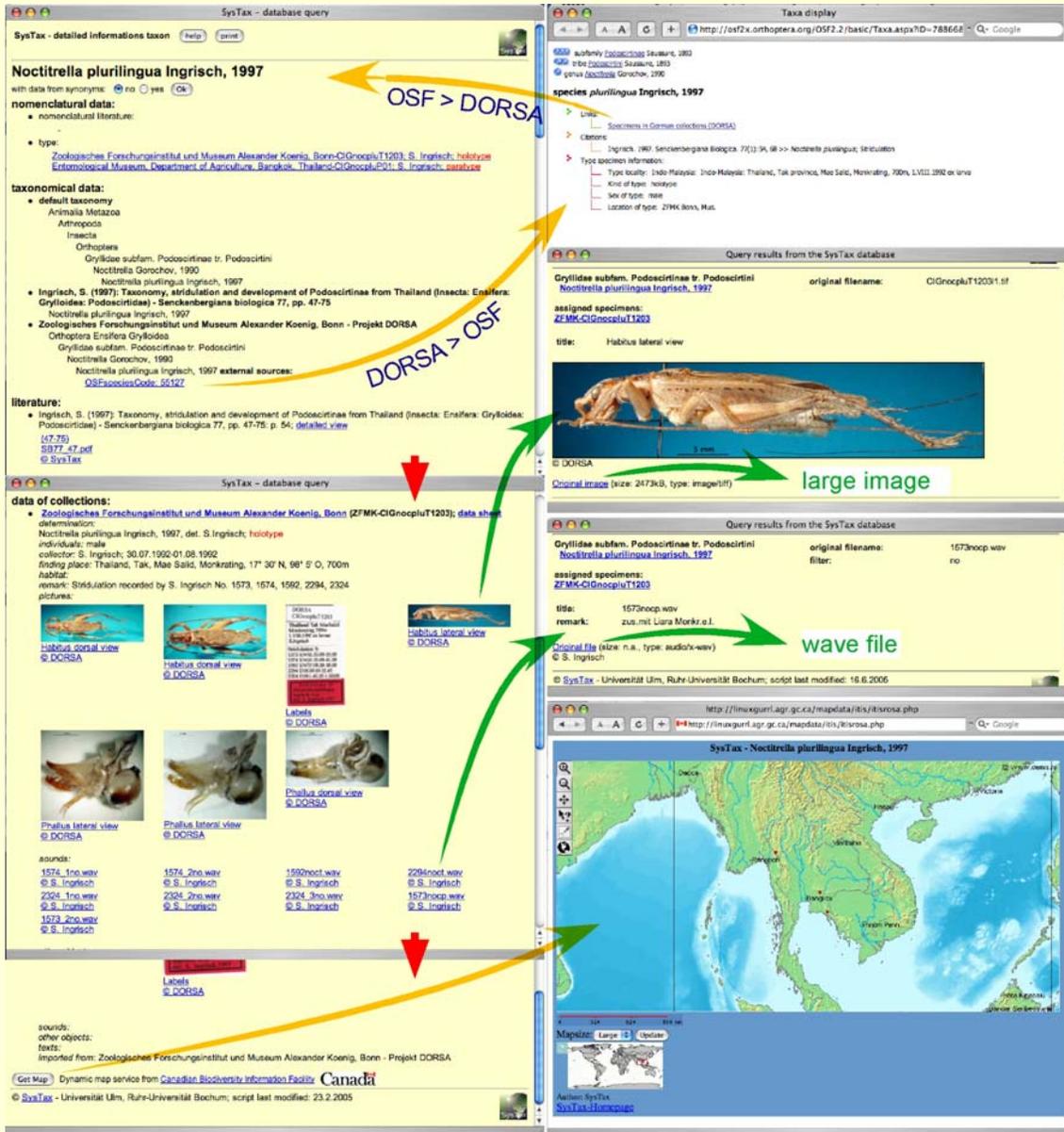
OSF



Digital Orthoptera Specimens Access

museum	presumption	museum data	validity check				
	taxa with primary types in OSF *	taxa with primary types checked	type data in OSF not confirmed in museum	primary types lost: taxa	primary types not listed in OSF	no taxon entry found in OSF	unlabeled, newly recognized prim. types
Berlin	1093	1272	15		221	68	12
Eberswalde	45	79		1	34		
Dresden	66	117	6		55	10	7
Hamburg	142	135	5	55	43	1	
Halle	38	55	4		25	4	16
Bonn	6	44			12	13	
Frankfurt	82	151			69	5	1
Stuttgart	47	112			65	5	3
München	27	54		1	21	1	
Sum	1546	2019	30	57	545	107	39

Dynamic linking of DORSA and OSF



SysTax - detailed information taxon
Noctitrella plurilingua Ingrisch, 1997
with data from synonymy: no yes Ok
nomenclatural data:
• nomenclatural literature:
• type:
Zoologisches Forschungsinstitut und Museum Alexander Koenig, Bonn-CiGrocpluT1203; S. Ingrisch; holotype
Entomologisches Museum, Department of Agriculture, Bangkok, Thailand-CiGrocpluT01; S. Ingrisch; paratype

taxonomical data:
• default taxonomy
Animalia Metazoa
Arthropoda
Insecta
Orthoptera
Gryllidae subfam. Podocirtinae tr. Podocirtini
Noctitrella Gorochoy, 1990
Noctitrella plurilingua Ingrisch, 1997
• Ingrisch, S. (1997): Taxonomy, stratification and development of Podocirtinae from Thailand (Insecta: Ensifera: Gryllidae: Podocirtidae) - Senckenbergiana biologica 77, pp. 47-75
Noctitrella plurilingua Ingrisch, 1997
• Zoologisches Forschungsinstitut und Museum Alexander Koenig, Bonn - Projekt DORSA
Orthoptera Ensifera Gryllidae
Gryllidae subfam. Podocirtinae tr. Podocirtini
Noctitrella Gorochoy, 1990
Noctitrella plurilingua Ingrisch, 1997 external sources:
OSFspeciesCode: 55127

literature:
• Ingrisch, S. (1997): Taxonomy, stratification and development of Podocirtinae from Thailand (Insecta: Ensifera: Gryllidae: Podocirtidae) - Senckenbergiana biologica 77, pp. 47-75, p. 54, detailed view
1977_47.pdf
@ SysTax

data of collections:
• Zoologisches Forschungsinstitut und Museum Alexander Koenig, Bonn (ZFMK-CiGrocpluT1203); data sheet
determination:
Noctitrella plurilingua Ingrisch, 1997, det. S. Ingrisch; holotype
individuals: male
collector: S. Ingrisch; 30.07.1992-01.08.1992
finding place: Thailand, Tak, Mae Sali, Monkkrating, 17° 30' N, 98° 5' O, 700m
habitat:
remark: Stratification recorded by S. Ingrisch No. 1573, 1574, 1592, 2294, 2304
pictures:
Habitus dorsal view @ DORSA
Habitus dorsal view @ DORSA
Habitus lateral view @ DORSA
Phallus dorsal view @ DORSA
Phallus lateral view @ DORSA
Phallus lateral view @ DORSA
Phallus lateral view @ DORSA
asounds:
1574_1no.wav @ S. Ingrisch
1574_2no.wav @ S. Ingrisch
1592no1.wav @ S. Ingrisch
2294_1no.wav @ S. Ingrisch
2294_2no.wav @ S. Ingrisch
2304_1no.wav @ S. Ingrisch
2304_2no.wav @ S. Ingrisch
1573_2no.wav @ S. Ingrisch

Taxa display
species plurilingua Ingrisch, 1997
• type:
Specimens in German collectors (DORSA)
• citations:
Ingrisch, 1997, Senckenbergiana biologica 77(1): 54, 68 -> Noctitrella plurilingua; Stratification
• Type specimen information:
Type locality: Indo-Malesia: Thailand, Tak province, Mae Sali, Monkkrating, 700m, LVIII.1992 ex larva
Kind of type: holotype
Sex of type: male
Location of type: ZFMK Bonn, Mus.

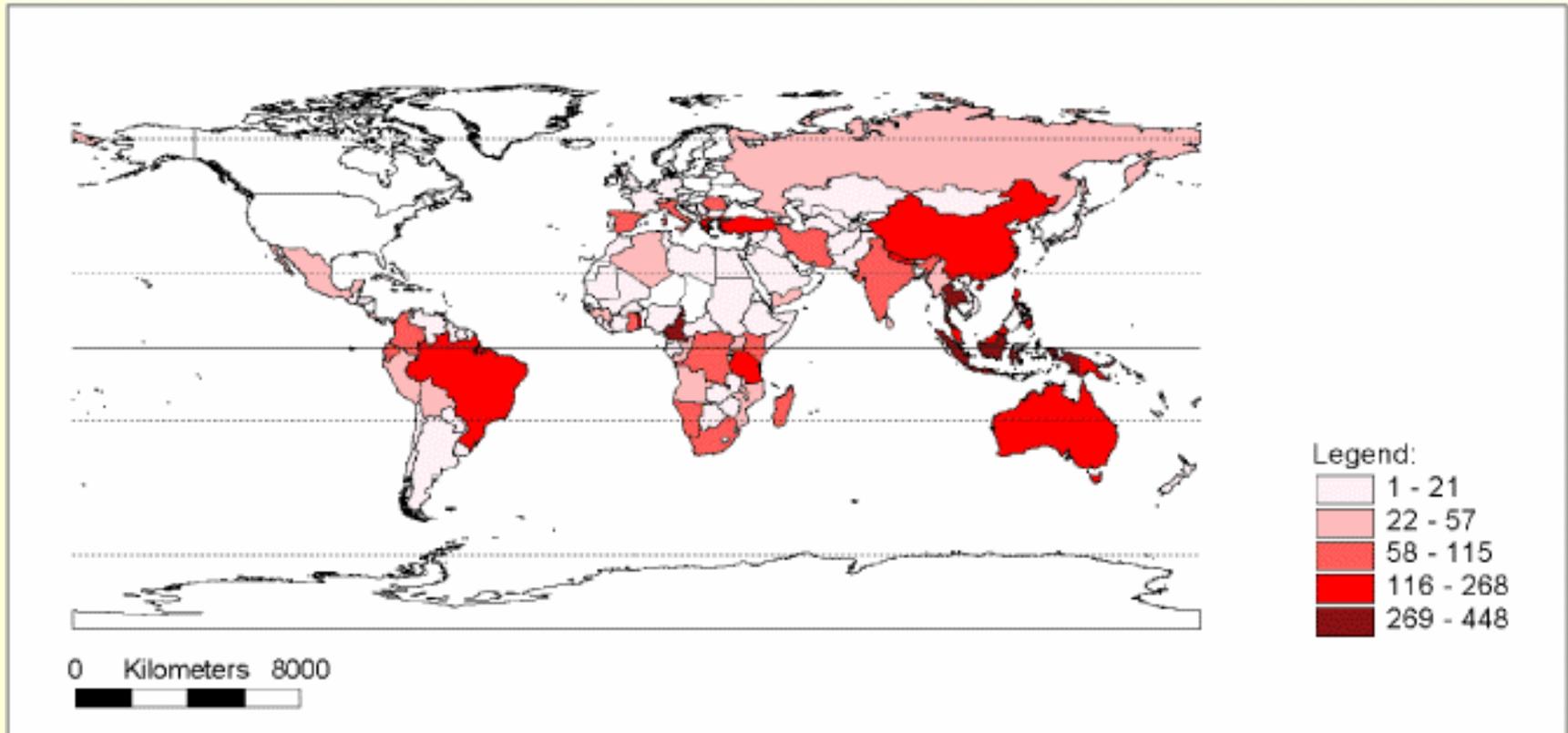
Query results from the SysTax database
Gryllidae subfam. Podocirtinae tr. Podocirtini
Noctitrella plurilingua Ingrisch, 1997
original filename: CiGrocpluT12031.tif
assigned specimens:
ZFMK-CiGrocpluT1203
title: Habitus lateral view
Original image (size: 2473kb, type: image/tif) large image

Query results from the SysTax database
Gryllidae subfam. Podocirtinae tr. Podocirtini
Noctitrella plurilingua Ingrisch, 1997
original filename: 1573noop.wav
filter: no
assigned specimens:
ZFMK-CiGrocpluT1203
title: 1573noop.wav
remark: zus.mit Liara Monkkr e.l.
Personal file (size: n.a., type: audio/wav)
@ S. Ingrisch
@ SysTax - Universität Ulm, Ruhr-Universität Bochum; script last modified: 16.6.2006

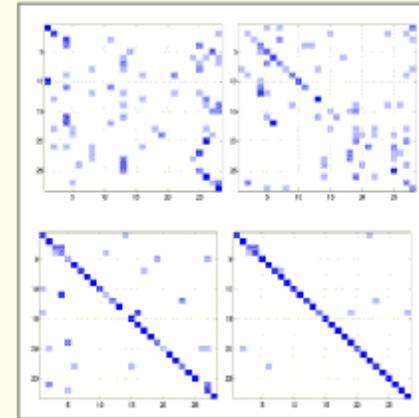
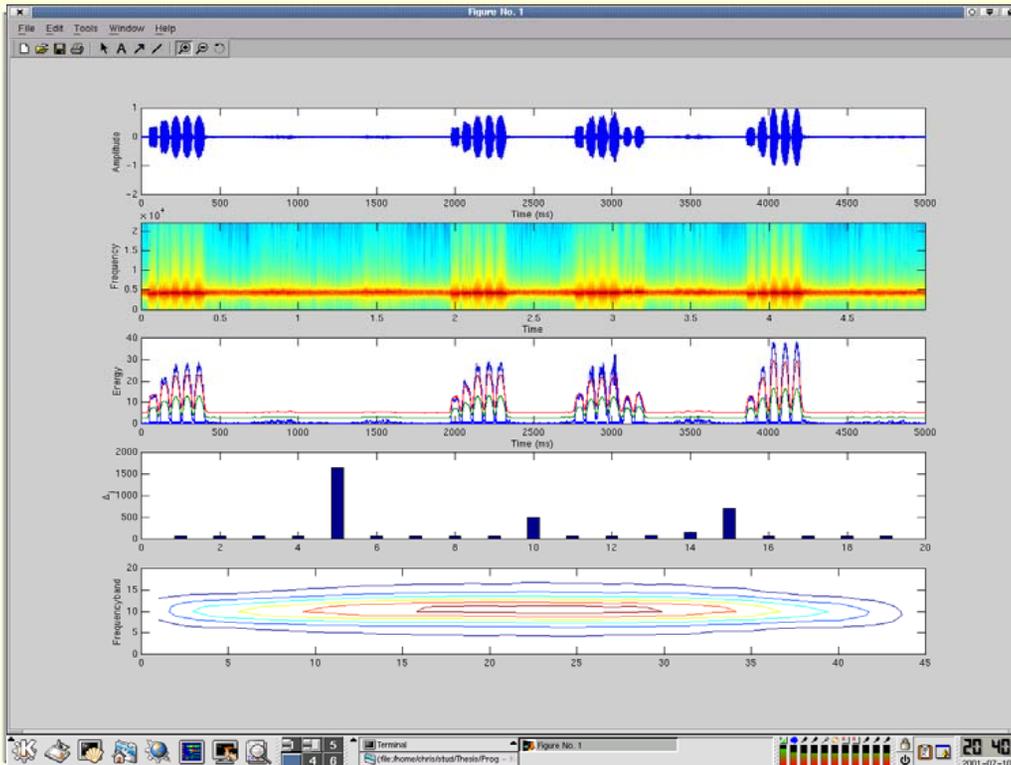
SysTax - Noctitrella plurilingua Ingrisch, 1997
Map: 1573 1592 2294 2304
Mapsize: Large 12 Update
Aerial SysTax
SysTax: Homepage

Dynamic linking

Countries of origin



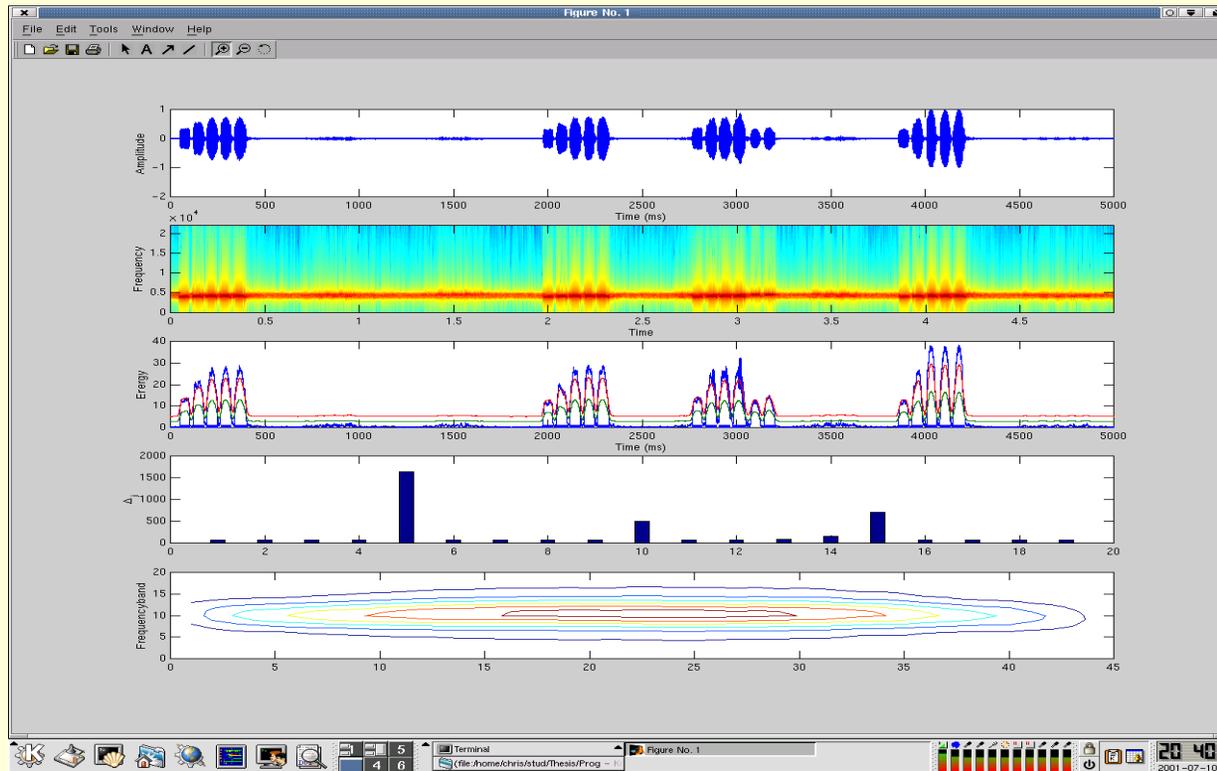
Neural network classification of cricket songs



A cricket song classification software was developed, based on neural networks trained by data-based song. It can be used in Rapid Assessment Programs, as a non-invasive technique to classify and map acoustic diversity in the field.

In cooperation with: Dept of Neuroinformatics, Ulm University; PhD thesis C. Dietrich

Extraction of sound parameters by using MatLab Software

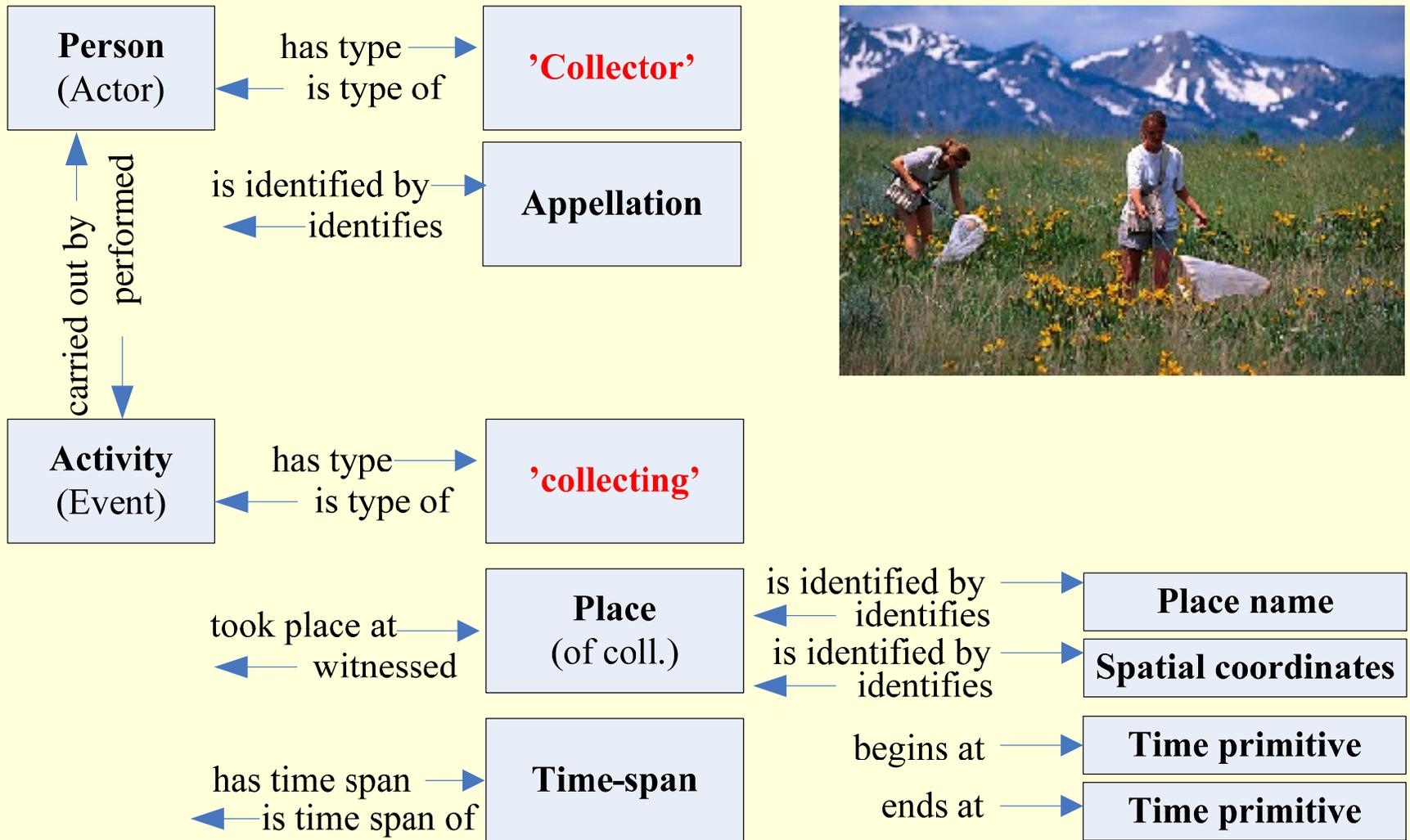


Carrier frequency

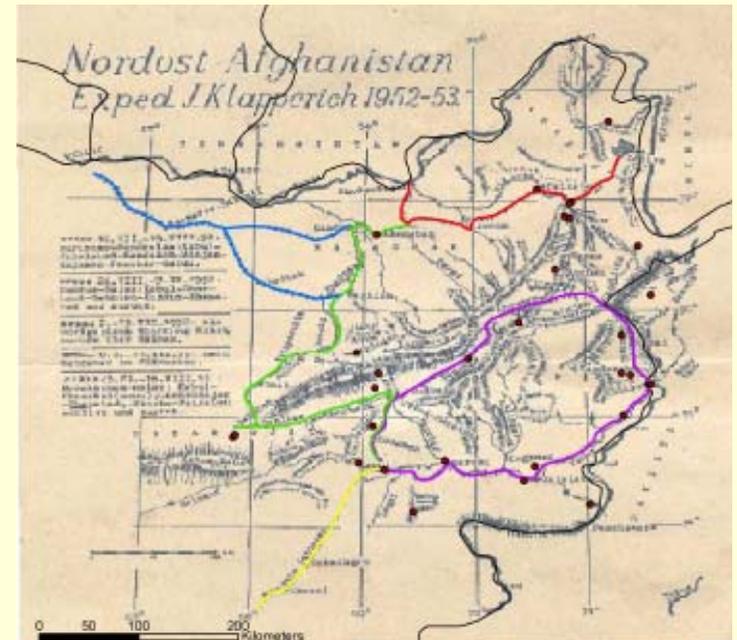
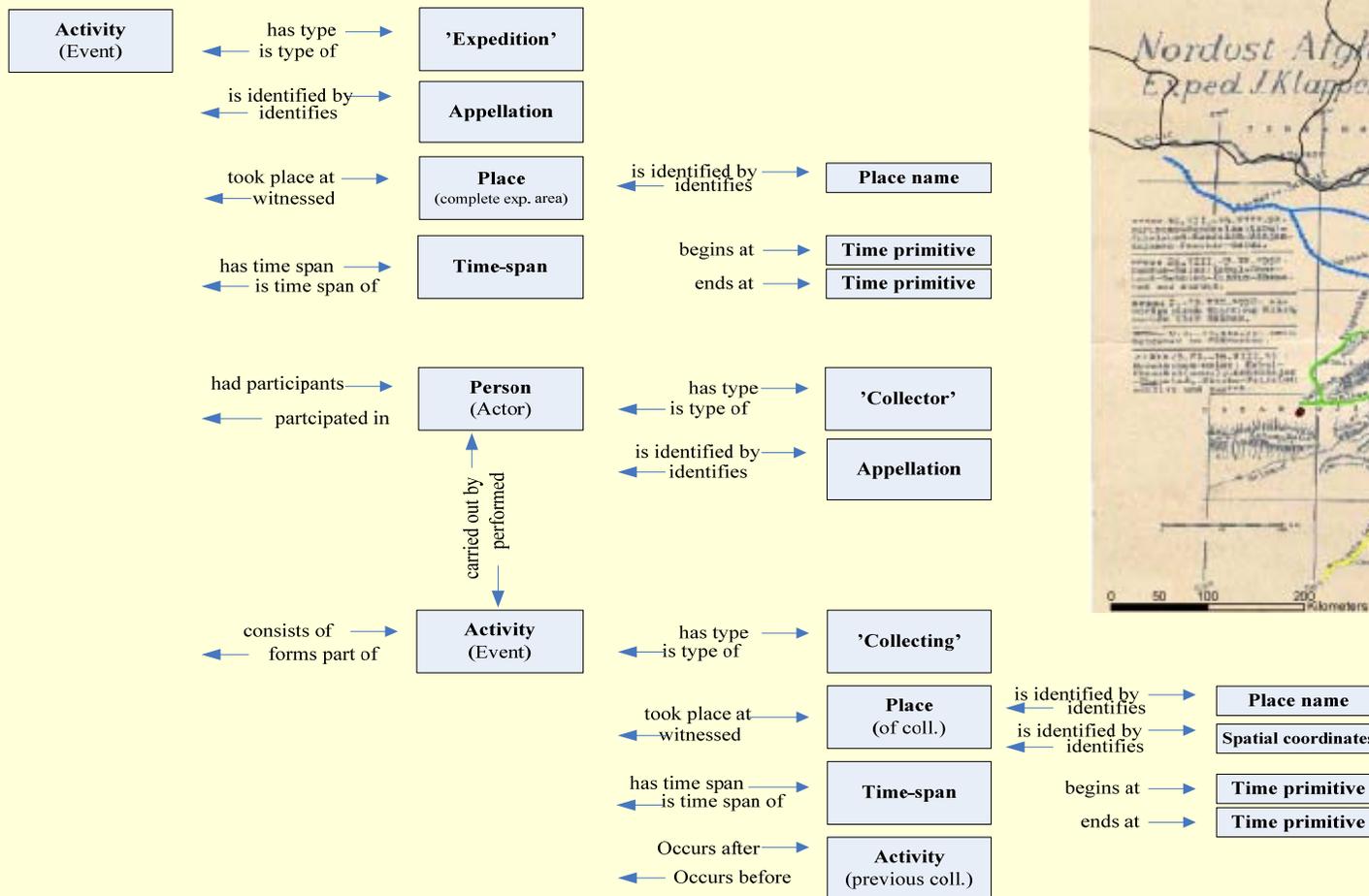
Pulse rate

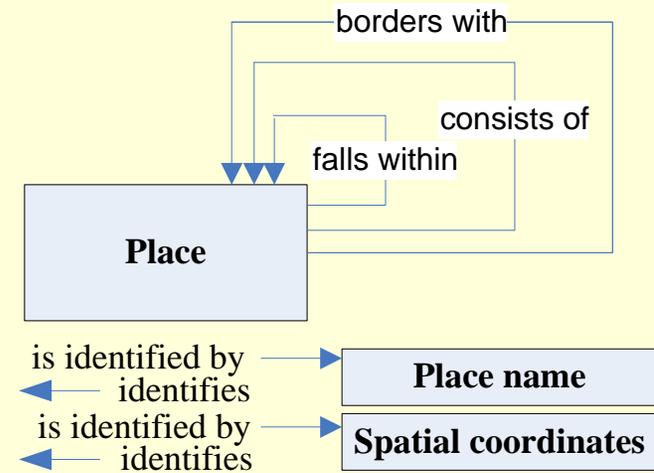
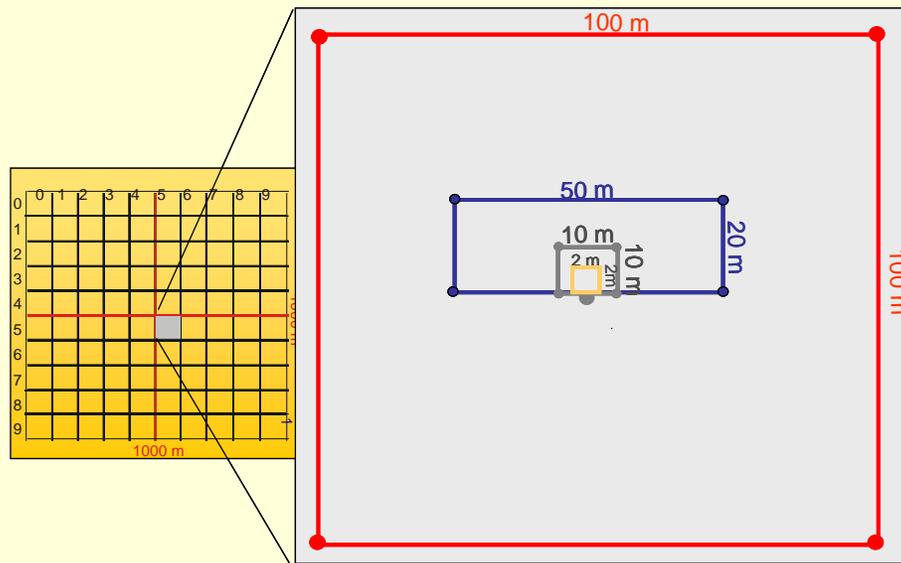
Carrier frequency

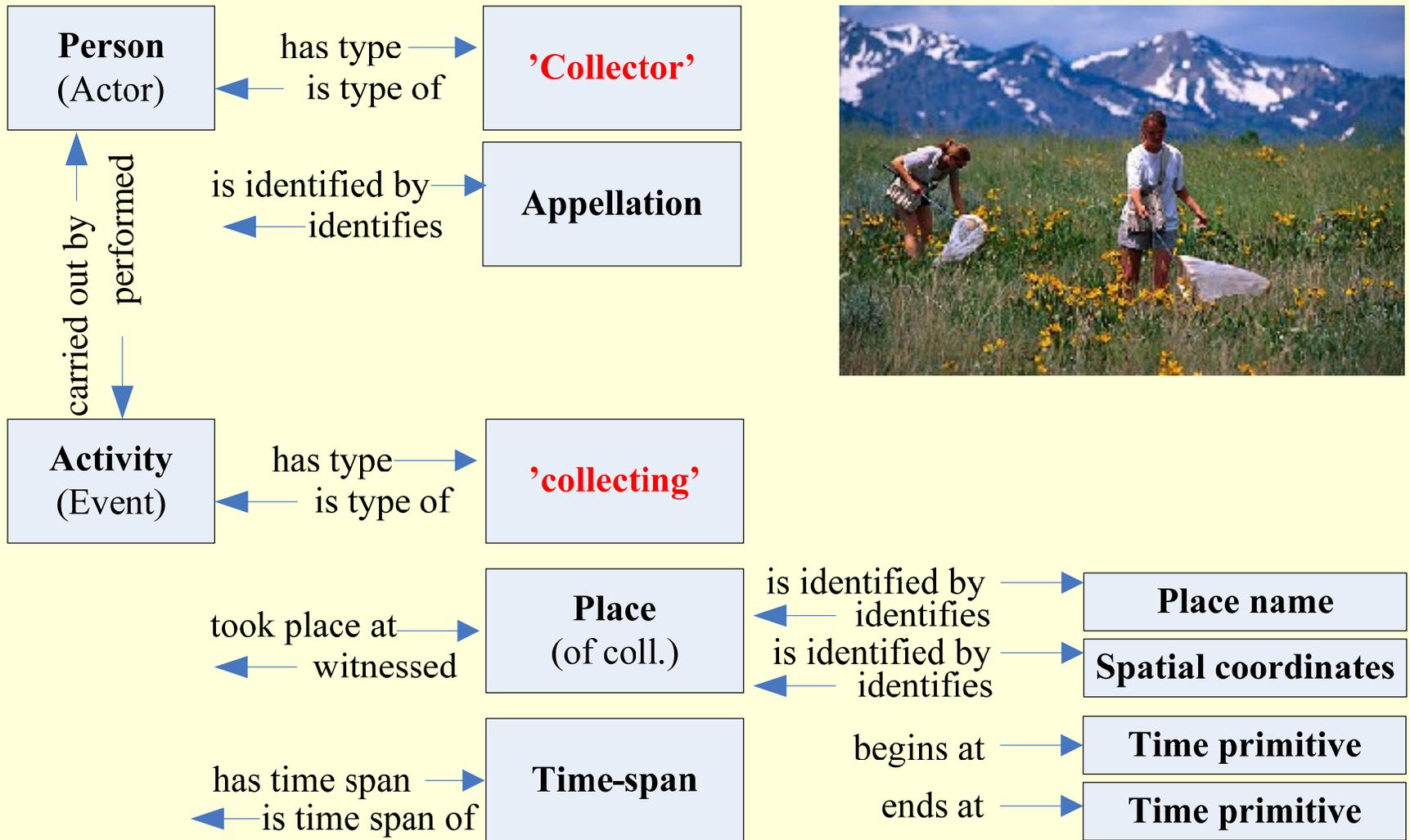
In cooperation with: Dept of Neuroinformatics, Ulm University; PhD thesis C. Dietrich



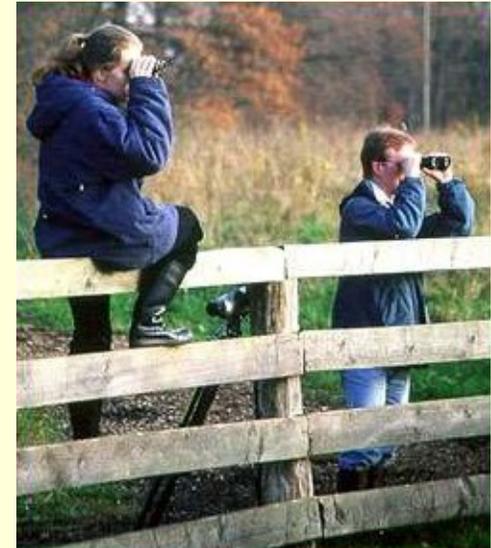
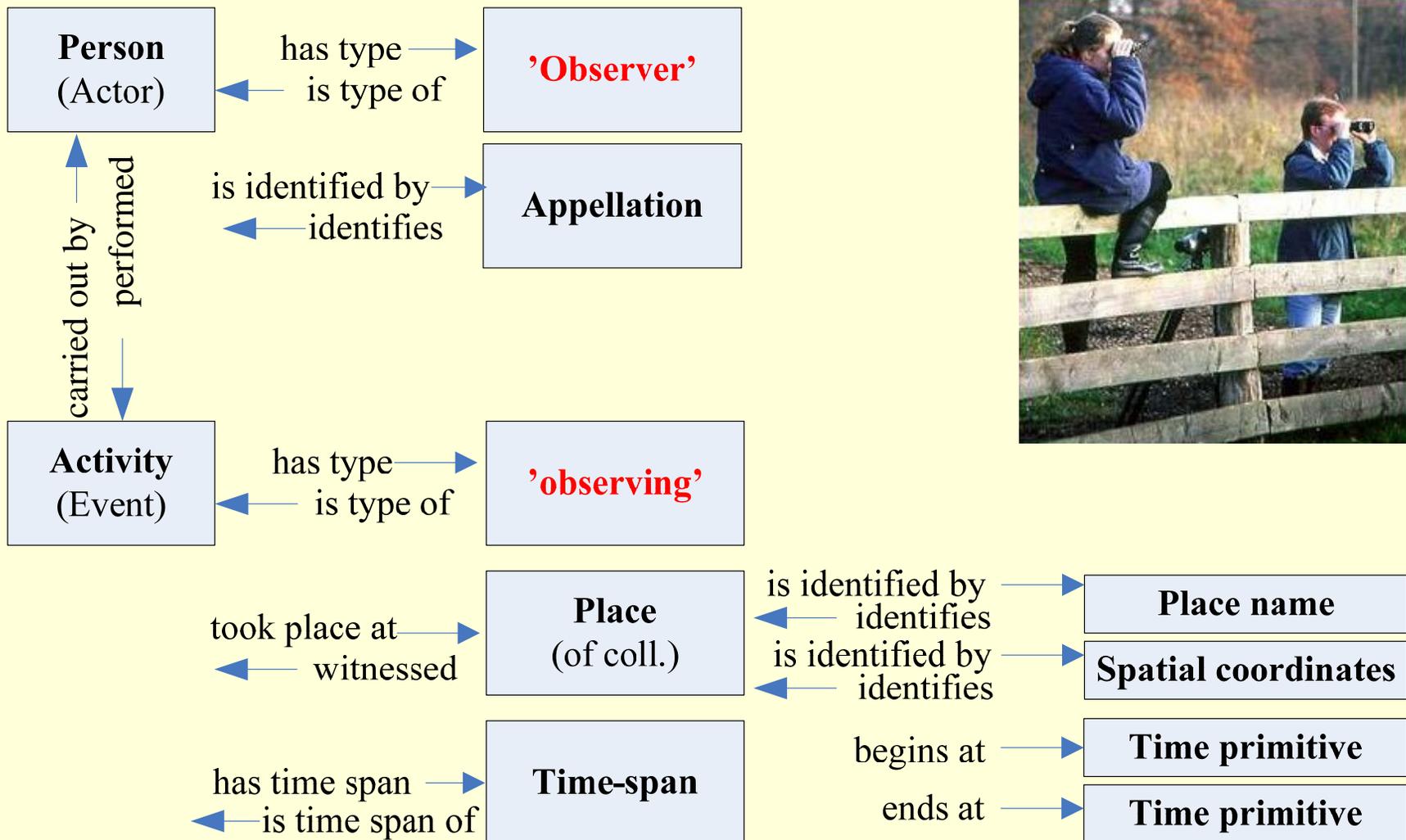
Collector's itineraries & expedition routes



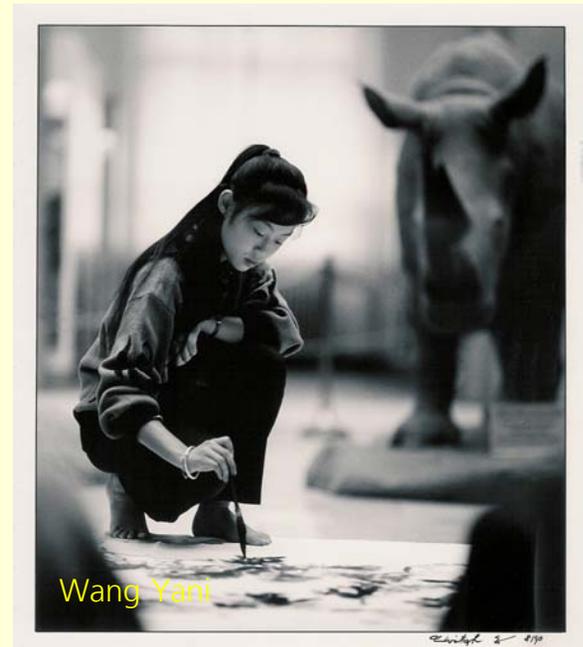
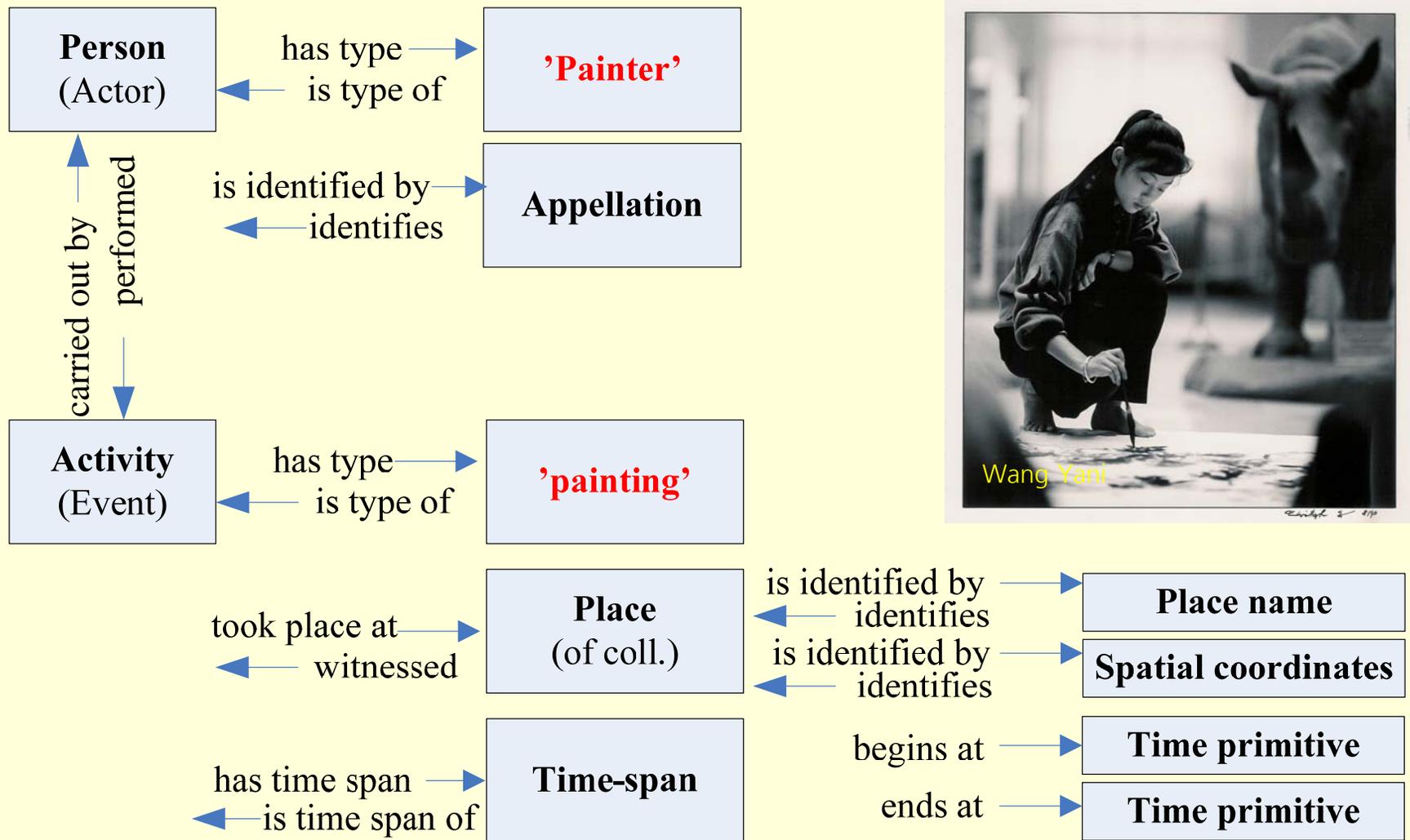




E20 Biological object



instances of documentary nature such as diary notes, inventory lists
 E31 document, E73 Information object



Painting = visual object or E73 Information object

Ontologies describe not only results of scientific activities such as a description of a biological species. Beside that they clarify the path how the goal was reached. The challenge today is to bring local, domain specific and global authority files together (via web services).

Ontologies as knowledge representation tools will therefore have strong impact on methodological questions and research behaviour for different domains such as biology, archaeology, art history, socio-economy etc.

In this sense they can be regarded as a semantic glue between and within scientific and scholarly domains.

- Dr Martin Doerr, ICS Forth, Heraklion/Crete, Greece
- Dr Klaus Riede & Dr Sigfrid Ingrisch, ZFMK, and the DORSA data capture team and curators responsible for Orthoptera in the museums in **Berlin, Eberswalde, Dresden, Hamburg, Halle, Bonn, Frankfurt, Stuttgart and Munich.**
- Dr Christian Dietrich, Dept. of Neuroinformatics, Ulm University
- Dr Brad Sinclair and the DIG-team, ZFMK
- Birgit Rach, Dirk Rohwedder, the BIODAT- & BIOTA E15- teams, ZFMK
- The German Ministry of Education and Research (BMBF) for funding the DORSA-, DIG- & BIOTA East Africa E15 projects.