

IMMATURE BEETLES MEETING PRAGUE

Department of Zoology, Faculty of Science,
Charles University, Prague, the Czech Republic
1st-2nd October 2009



The Coleoptera Immature Collection
of the “Museu de Zoologia da
Universidade de São Paulo” Brazil.

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Museu de Zoologia/USP
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The Coleoptera Immature Collection (MZUSP) Brazil



The Coleoptera Immature Collection of the MZUSP comprehends samples of approximately 18.521 larvae, 3.159 pupae and 17.480 adults.

The specimen come mainly from BRAZIL: Pará; Distrito Federal Mato Grosso; Mato Grosso do Sul; Goiás; Minas Gerais; Rio de Janeiro; São Paulo; Paraná and Rio Grande do Sul.



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Retrospective

1966-2001. Several scientific papers dealing with immature were published.

1977. Set up of a laboratory to rearing larvae, beginning of the series: “Larvae of Neotropical Coleoptera” with the colaboration of S. A. Vanin; up to 1999, 27 complete papers were published in that series.

1980. Consolidation of the research team adding S. A. Casari and S. Ide and beginning of a long term project on the “*Estudo de larvas de Coleoptera da Região Neotropical*”. Publication in 1988 of the book “*Larvas de Coleoptera do Brasil*”.



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Methodology

We collected larvae and live adults to correlate immature and adults to identify the species.

Depending on the species the correlation larva/adult was made on the spot and in that case both were fixed in an appropriate way.

When necessary larvae were maintained in the laboratory during some time no longer than two years.



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In Termite nest





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In dead wood

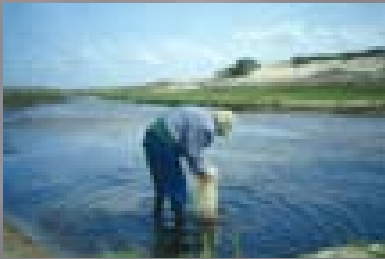




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In aquatic environment





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Rearing....

1986

in the laboratory



1980





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1991

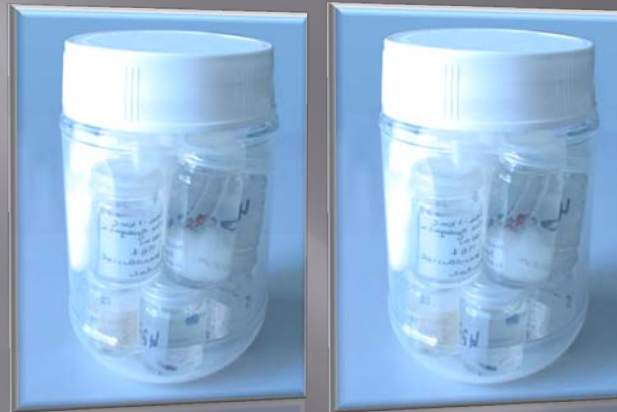
Rearing....

in the laboratory





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The collection is characterized by the higher number of immature rearing to adults in the laboratory.

It is conditioned in flasks of glass of several sizes and preserved in ethanol 70%; at moment it is zipped in 6 steel cabinets and 145 lidless drawers, also of steel.



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The major part of the adults is conditioned together with the immature reared in the laboratory; part is mounted dried and kept in separate cabinets.



That collection is the unique among its congeners in the world that includes almost exclusively material reared in laboratory.



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Starting from 1992, the optimization of the use of the immature collection was made by means of the addition of a database with the aid of the application “Access for Windows”.

The objective is to allow the incorporation of the information generated to obtain quicker consultation of the collection.



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The database is formed by four tied files and its respective indexes:

Imat-col., the main one, contains, among others, information like: number of the sample, its localization in the collection, collection locality (coded), classification (coded) until species level, data on sample movement (donations, exchanges, loans), description of the sample, etc.

Imat-loc., with data of the collection locality and collectors;

Imat-cla., with the classification of the Coleoptera structured in such way that allows periodic upgrades;

Imat-cri., with relating data to the breeding of the material in the laboratory.



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Microsoft Access - [IMAT-COL : Tabela]

Arquivo Editar Exibir Inserir Formatar Registros Ferramentas Janela Ajuda Adobe PDF

	NUMCOL	NUMAR	NUMGAV	CODLOC	DATA COL	ECOTOPO	CLASSCOL
+ 000.001	001	01	SPAUL-19851122	22/11/1985	MADEIRA	01.01.00.00.003.00.00.	
+ 000.002	001	01	AMERI-19851113	13/11/1985	MADEIRA	01.01.00.00.003.00.00.	
+ 000.003	001	01	SPAUL-19780228	28/02/1978	MADEIRA	01.01.00.00.003.00.00.	
+ 000.004	001	01	SPAUL-19721202	02/12/1972	MADEIRA	01.01.00.00.003.00.00.	
+ 000.005	001	01	SCIPO-19741029	29/10/1974	LAGOA TEMPORÁRIA	01.01.00.00.003.00.00.	
+ 000.006	001	01				01.01.00.00.003.00.00.	
+ 000.007	001	01	AREIS-19750208	08/02/1975	570 M.	01.02.00.00.006.00.00.	
+ 000.008	001	01	MURIA-00000000		PEDRA PRETA	01.02.00.00.006.00.00.	
+ 000.009	001	01	MANGA-19720401	01/04/1972		01.02.00.00.006.00.00.	
+ 000.010	001	01	PELOT-19930415	15/04/1993		01.02.00.00.006.00.00.	
+ 000.011	001	01	IBATI-19750207	07/02/1975	900 M.	01.02.00.00.006.00.00.	
+ 000.012	001	01	NFRIB-19850201	01/02/1985	950 M.	01.02.00.00.006.00.00.	
+ 000.013	001	01	SFIDE-19681218	18/12/1968		01.02.00.00.006.00.00.	
+ 000.014	001	01	SCIPO-00000000		RIACHO TEMPORÁRIO	01.02.00.00.006.00.00.	
+ 000.015	001	01	SCIPO-19751206	06/12/1975		01.02.00.00.006.00.00.	
+ 000.016	001	01	STERE-19690331	31/03/1969		01.02.00.00.006.00.00.	
+ 000.017	001	01	SFIDE-19750204	04/02/1975	50 M.	01.02.00.00.006.00.00.	
+ 000.018	001	01	STERE-19690401	01/04/1969		01.02.00.00.006.00.00.	
+ 000.019	001	01	SCIPO-00000000		RIACHO TEMPORÁRIO	01.02.00.00.006.00.00.	
+ 000.020	001	01	AREAL-19710727	27/07/1971		01.02.00.00.006.00.00.	
+ 000.021	001	01	TERES-19710828	28/08/1971	830 M.	01.02.00.00.006.00.00.	
+ 000.022	001	01	RJANE-19710901	01/09/1971		01.02.00.00.006.00.00.	
+ 000.023	001	02	SCIPO-19751206	06/12/1975		01.02.00.00.006.00.00.	

Registro: 28 de 10254

Modo folha de dados

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Windows taskbar: Iniciar, Ado..., Col..., 2 M., 16:09



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	DESCRLOTE	ENTIFINAN	MOVIMENTA	DATAEMP
	+ Lote com 53 larvas não criadas e fixadas.			
	+ Lote com 40 larvas e 100 adultos fixados.			
	+ Lote com 100 larvas e 400 adultos fixados.			
	+ Lote com 90 larvas e 70 adultos fixados.		E	04/07/2001
	+ Lote com 04 adultos fixados.			
	+ Lote com 01 larva fixada.	FAPESP-WSHOP HAWAII		
	+ Lote com 16 adultos fixados.			
	+ Lote com 01 larva fixada.			
	+ Lote com 24 larvas e 04 adultos fixados.			
	+ Lote com 06 larvas e 01 adulto fixados.		E	15/10/1990
	+ Lote com 17 larvas e 19 adultos fixados.			
	+ Lote com 06 adultos fixados.		E	04/07/2001
	+ Lote com 01 larva fixada.		E	15/10/1996
	+ Lote com 02 larvas e 07 adultos fixados.			
	+ Lote com 01 adulto e 10 larvas fixados.		E	15/10/1996
	+ Lote com 18 adultos fixados.			
	+ Lote com 03 larvas fixadas.			
	+ Lote com 08 larvas fixadas.			
	+ Lote com 02 larvas e 31 adultos fixados.			
	+ Lote com 01 larva e 01 adulto fixados.			
	+ Lote com 01 larva fixada.			
	+ Lote com 11 larvas e 04 pupas fixadas.			

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Modo folha de dados

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DESCREMOV	
+	
+	
+	
+	10 LARVAS EMPRESTADAS POR 01 ANO A VASILY V. GREBENNIKOV, UNIVERSITY OF PRETÓRIA - PRETÓF
+	
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+	3 LARVAS, 2 MACHOS E 2 FÊMEAS EMPRESTADOS AO DR. ROLF G. BEUTEL, INSTITUT FÜR SPEZIELLE ZC
+	
+	
+	01 LARVA EMPRESTADA POR 01 ANO A VASILY V. GREBENNIKOV - UNIVERSITY OF PRETÓRIA - PRETÓRIA
+	2 MACHOS E 2 FÊMEAS EMPRESTADOS AO DR. ROLF G. BEUTEL, INSTITUT FÜR SPEZIELLE ZOOLOGIE UI
+	
+	3 LARVAS EMPRESTADAS AO DR. ROLF G. BEUTEL, INSTITUT FÜR SPEZIELLE ZOOLOGIE UND EVOLUTIONI
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Modo folha de dados	
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PUBLICGER	PUBLICACAO
+ -1	Costa, C.; S. A. Vanin & S. A. Casari-Chen. 1988. Larvas de Coleoptera do Brasil. São Paulo, Musel
+ -1	Costa, C.; S. A. Vanin & S. A. Casari-Chen. 1988. Larvas de Coleoptera do Brasil. São Paulo, Musel
+ -1	Costa, C.; S. A. Vanin & S. A. Casari-Chen. 1988. Larvas de Coleoptera do Brasil. São Paulo, Musel
+ -1	Costa, C.; S. A. Vanin & S. A. Casari-Chen. 1988. Larvas de Coleoptera do Brasil. São Paulo, Musel
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Modo folha de dados NUM



The Coleoptera Immature Collection (MZUSP) Brazil

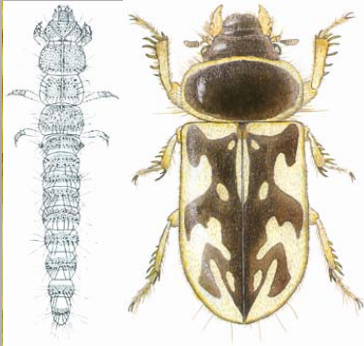
	TOTLARVAS	TOTEXLARV	TOTPUPAS	TOTADULT
+	53	0	0	0
+	40	0	0	100
+	100	0	0	400
+	90	0	0	70
+	0	0	0	4
+	1	0	0	0
+	0	0	0	18
+	1	0	0	0
+	24	0	0	4
+				
+	6	0	0	1
+	17	0	0	19
+	0	0	0	8
+	0	0	0	48
+	2	0	0	7
+	10	0	0	1
+	0	0	0	18
+	3	0	0	0
+	8	0	0	0
▶	2	0	0	37
+	1	0	0	1
+	1	0	0	0
+	11	0	4	0

Registro: 41 de 10254

Modo folha de dados



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Many thanks for your kind attention!