



**University of Colorado Museum
of Natural History**

**Annual Report
Fiscal Year 2006**

University of Colorado Museum of Natural History

ANNUAL REPORT

Fiscal Year 2006

Mission Statement

The University of Colorado Museum fosters exploration and appreciation of the natural environment and human cultures through research, teaching, and community outreach. We provide academic training for graduate students in Museum and Field Studies; build, conserve, and interpret research collections; and offer exhibits and educational programs for the University and the public.

From the Director Accomplishments

The CU Museum completed its self-study for the University of Colorado mandated Program Review Process (PRP) in January of 2006. The PRP internal review committee met with CU Museum students, staff and faculty and submitted their report in May 2006. The CU Museum attracted a record 50,000 visitors to its public programs, research sections, and classes, moving closer to the 70,000 goal suggested by the accreditation committee of the American Association of Museums. The renovated Paleontology Hall opened in December of 2005, the first major renovation to the CU Museum's long-term halls in thirteen years. Website access to the Museum's collections, the Public Programming calendar, and MFS Program information will exceed 400,000 page views this year. After thirteen years of service to the CU Museum and the University of Colorado, Dr. Linda Cordell retired at the end of May 2006. Dr. Thomas Ranker was appointed Interim Museum Director, beginning June 1, 2006.

Linda S. Cordell

Section Highlights

Museum & Field Studies Graduate Program (MFS)

The MFS Program received fifty six graduate and four certificate applicants, and admitted nine graduate and three certificate students.

Seven MS degrees and one certificate were awarded in FY06.

Students were awarded \$4000 in travel and research support from the Collie Fund.

Public Section

Jim Hakala, former Education Coordinator, became the Assistant Director, and Pat Purnell was hired as the new Education Coordinator.

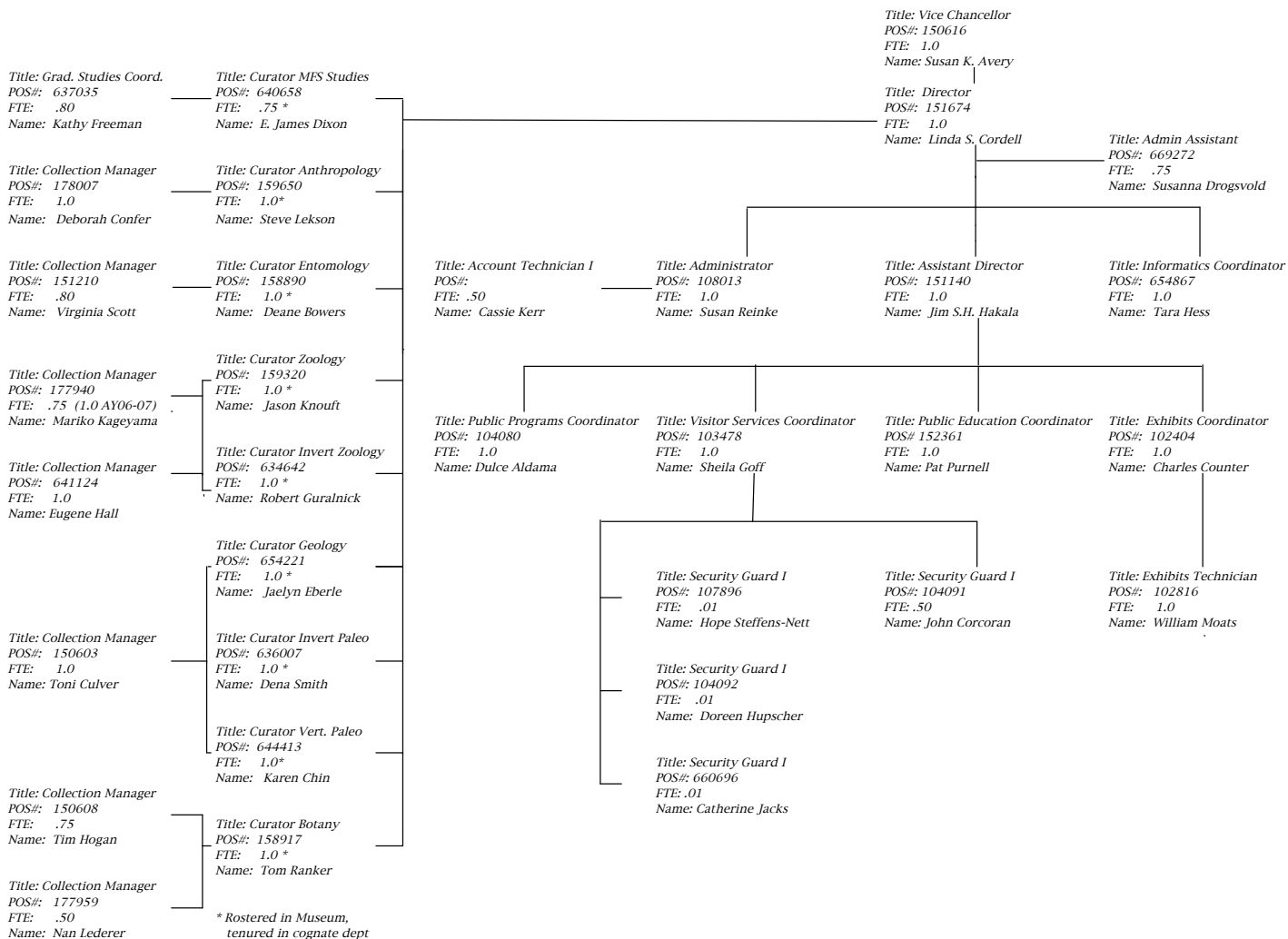
The Paleontology Hall was extensively refurbished and re-opened to much praise.

We were awarded the Mountain Plains Museum Association Education Committee's Award for Excellence in Programming for the Girls At the Museum Exploring Science program, and nominated for the national award.

Our Student Advisory Board of 11 undergraduate students convened for a second year and provided excellent input and feedback for our exhibits and programs.

We developed and adopted a new Interpretive Plan.

University of Colorado Museum of Natural History Organization



University of Colorado Museum of Natural History

Faculty and Staff

Linda S. Cordell, Director
Thomas Ranker, Interim Director

Faculty

M. Deane Bowers, Curator Entomology, Prof., EBIO
Karen Chin, Curator Paleontology, Asst. Prof., Geological Sciences
E. James Dixon, Curator MFS, Assoc. Prof., Anthropology
Jaelyn Eberle, Curator Vertebrate Paleontology, Asst. Prof., Geological Sciences
Steven Lekson, Curator Anthropology, Assoc. Prof., Anthropology
Jason Knouft, Curator Vertebrate Zoology, Asst. Prof., EBIO
Robert Guralnick, Curator Invertebrate Zoology, Asst. Prof., EBIO
Dena Smith, Curator Invertebrate Paleontology, Asst. Prof., Geological Sciences
Thomas A. Ranker, Curator Botany, Assoc. Prof., EBIO

J. A. Harris, Curator Emeritus, Paleontology
Peter Robinson, Curator Emeritus, Geology
William Weber, Curator Emeritus, Botany
Shi-Kuei Wu, Curator Emeritus, Invertebrate Zoology

Collections Management Staff

Deborah Confer, Collection Mgr, Anthropology
Toni Culver, Collection Mgr, Paleontology
W. Eugene Hall, Collection Mgr, Invertebrate Zoology
Tim Hogan, Collection Mgr, Botany
Nan Lederer, Collection Mgr, Botany
Mariko Kageyama, Collection Mgr, Vertebrate Zoology
Virginia Scott, Collection Mgr, Entomology

Staff

Dulce Aldama, Public Programs Coordinator
John Corcoran, Security Desk Staff
Charles Counter, Exhibits Coordinator
Susanna Drogsvold, Assistant to Director
Kathy Freeman, Graduate Program Coordinator, MFS Program
Sheila Goff, Visitor Services Coordinator, Building Proctor
James S. H. Hakala, Assistant Director
Tara Hess, Informatics Coordinator
Catherine Jacks, On-Call Security Staff
Cassie Kerr, Accounting Technician
Pat Purnell, Public Education Coordinator
Bill Moats, Exhibits Technician
Susan Reinke, Administrator
Hope Steffens-Nett, On-Call Security Staff

Research Staff

Gregory Hill, Professional Research Assistant, NSF: IslandNet (Knouft)
Amy Moe, Professional Research Assistant, NSF: Invert.Paleo Collections (Smith)
David Neufeld, Professional Research Assistant, NSF: MAPSTeDI (Guralnick)
Cesar Nufio, Professional Research Assistant, Entomology

Museum Advisory Board 2005-2006

Bruce Curtis
Barb Diehl, Chair
Diane Greenlee
Carol Heepke
Nancy Markham
Danielle Okin
Janet Robertson
Jean Rodeck
Joe Romig
Jacqueline Sandblom
Joslyn Schoemer
Nancy Sievers
Jack Stoakes
Paul Weimer
Zita Weinschenk
Ruth Wright

Linda Cordell, Museum Director
Jim Hakala, Museum Assistant Director
Brenda Parolini, CU Foundation

Museum Student Advisory Board (SAB)

David Barton (Senior)
Julia Spalding (Senior)
Audrey Jo Mills (Senior)
Joe Navarro (Senior)
Anne Getts (Junior)
Amy Lippe (Junior)
Vikas Malaiya (Junior)
Taylor Names (Sophomore)
Christopher Aiken (Sophomore)
Eleni Ann Kelaidis (Freshman)
Josh Kruger (Freshman)

(SAB students represent diverse majors from the departments of Philosophy, Anthropology, Humanities, Linguistics, Engineering (both Aerospace and Architectural), Biochemistry, MCD Biology, and History.)

University of Colorado Museum of Natural History

Financial Statement

	FY2006	% Change Last Year	% of Total
Expenditures by Source of Funds			
General Fund (State appropriated)	1,957,251		
Plant Fund	26,615		
Net GF/Plant	1,983,866	11%	69%
Auxiliary Fund	39,692	-47%	1%
Restricted Funds			
Contracts and Grants	736,912	7%	26%
Gifts and Endowments	101,809	5%	4%
Total Expenditures by Source of Funds	2,862,279	8%	100%
Expenditures by Cost Category			
Salaries and Wages	1,940,377	5%	68%
Benefits	56,391	24%	2%
Subtotal Personnel	1,996,768	5%	70%
General Operating	491,192	-10%	17%
Tuition Remission and Scholarships	99,292	33%	3%
O&M (Utilities)			
F&A (ICR)	155,098	26%	5%
Fixed Assets	41,138	260%	1%
Net Transfers	78,791		
Subtotal Operating Support	865,511	15%	30%
Total Expenditures by Cost Category	2,862,279	8%	100%
Fiscal Year End Fund Balances			
General Fund Temporary Rollforward	8,838	-60%	2%
Auxiliary Fund	69,903	29%	13%
Plant Fund	351,351	-5%	65%
Gift Fund	112,381	-19%	21%
Subtotal UCB Fund Balances	542,473	-7%	100%
CU Foundation			
Current Gifts	21,491	14%	15%
Endowment Earnings	121,096	38%	85%
Subtotal CU Foundation Balances	142,587	34%	100%
Total Fiscal Year End Fund Balances	685,060	-1%	

University of Colorado Museum of Natural History

Statistical Highlights

Museum Visitors

	Visitors to Collections						Public Section	M&FS Grad Prog	Total Museum	%
	Anthro	Botany	Ento	Paleo	Zool	Total				
Univ of Colorado	207	203	99	68	53	630	3,393	4,244	8,267	12%
Colorado Residents, Non-CU	69	126	21	47	69	332	11,351	-	11,683	17%
K-12	38	na	3	70	22	133	7,516	-	7,649	11%
US, non-Colorado	37	22	11	16	10	96	41,747	-	41,843	60%
Non-US	2	3	-	-	7	12	na	-	12	0%
Total visitors	353	354	134	201	161	1,203	64,007	4,244	69,454	100%

INQUIRIES

Info requests-phone, written	105	80	159	93	36	473	na	131	473	
July 1, 2005- June 30, 2006										
Website Database Access	-	49,40	40,230	-	-	89,631	-	-	89,631	
Website Access Total	11,068	69,715	56,488	16,172	13,538	166,981	458,373	73,363	698,717	

Public Tours, Programs, and Teacher Workshops

Public Admissions By Category	Visitors						K-12 School Tours			K-12 Outreach	Total School	Adult Programs	Total
	CU Students		Family		Staffed Tours	Non-Staffed Tours	Total	K-12 Outreach	Total School	Adult Programs	Total		
	Non CU	K-12	K-12	#Attend								#Attend	#Attend
Jul05-Dec05	1,840	3,822	1,095	42	741	12	294	1,035	1,600	2,635	97	2,732	
Jan06-Jun06	1,553	5,963	1,268	64	1,045	7	323	1,368	1,150	2,518	24	2,542	
	3,393	9,785	2,363	106	1,786	19	617	2,403	2,750	5,153	121	20,815	
Percent of Total	16%	47%	11%		9%		3%	12%	13%	25%	1%	100%	
Non-CU Combined Total:												84%	

Top Ten Public Programs

Program	#Attend
Day of the Dead Opening	283
Astronomy of Ancient Puebloans	210
Spring Tree Walk	140
Bill Harney Lecture	120
Fall Color Tree Walk	118
Nancy Blomberg Lecture	115
Holiday Party	114
Traditional Mexihka Beliefs Lecture	84
Van Riper students talk 2/9	74
A Legacy Opening	70
Total Attendance:	1,328

Top Five Education Programs

Program	#Attend
Boulder Creek Festival	600
Spring '06 Family Day	251
Fall '05 Family Day (DoD)	250
GAMES	182
Water Festival	124
Total Attendance:	1,407

University of Colorado Museum of Natural History

Statistical Highlights

Section Highlights

Informatics

Under the direction of PI Steve Lekson, developed the Yellow Jacket Project website (<http://yellowjacket.colorado.edu>) as part of a Colorado State Historical Fund grant. This website includes three detailed site reports and an introduction to the Yellow Jacket collection currently housed at the Museum.

Updated content and transferred the hosting of the Grasslands Bioblitz website (<http://grasslands-bioblitz.org>) to the Museum's web server.

Under the direction of co-PI Guralnick, developed the Alpine Microbial Observatory website (<http://amo.colorado.edu>) as part of a larger NSF grant.

As part of the Gordon Alexander Project (NSF-funded collections improvement grant), migrated the single-user Biota database to a server/client-based model.

Began migrating the invertebrate paleontological and paleobotanical data from the existing Access database to the Specify collections management software as part of a larger NSF-funded collections improvement grant.

Successfully installed and implemented an electronic point of sale and inventory system for the Museum's gift store.

Number of virtual visitors to the Museum's website increased 45% from FY2005 to FY2006.

Traveling Exhibits: Reported Attendance

Exhibit	#Attend
Small Wonders	
Hi-Desert Museum	6,555
Children's Museum-Portsmouth	33,597
Praireview Ed. Center	220
Gorillas in the Lens	
The Oakland Zoo	750
Pioneer Women's Museum	625
Healing Power of Plants	
The Wildlife Experience	845
Total Attendance:	42,592

Traveling Exhibits: Revenue

Beginning Balance	4,538	
Gross Revenue:	10,394	100%
Trav Ex Expense	(3,798)	25.4%
Exhibits Programs	(4,345)	29.1%
Carryforward for Traveling Exhibits:	6,789	45.5%

University of Colorado Museum of Natural History

Statistical Highlights

Museum Collections Usage							Section Highlights
	Anthro.	Bot.	Ento.	Paleo.	Zool.	CU Museum	
Loans (# loans)							Anthropology Completed 8 tribal consultations under the Native American Graves Protection and Repatriation Act (NAGPRA) with grant funding of \$75,000 from National Park Service.
To CU faculty/students	1	1	10	30	40	82	
To other institutions	2	34	10	41	10	97	
Total loans	3	35	20	61	50	169	
Specimens (# specimens)							Botany Under the supervision of conservator Terri Schindel, section staff and 24 volunteers surveyed 400 Southwest textiles to assess preservation and storage needs with \$5,000 from the Preservation Assistance Grant program of the National Endowment for the Humanities.
To CU faculty/students	10	3	241	366	528	1,148	
To other institutions	5	1,500	3,565	790	6,164	12,024	
Total specimens	15	1503	3806	1156	6,692	13,172	
Exchange							
# of exchanges sent	na	4	na	na	na	4	
# of exchanges received	-	12	-	-	-	12	
# of specimens sent	-	267	-	-	-	267	
# of specimens received	-	2,931	-	-	-	2,931	
Collection Growth							
Total Accessions							
(# specimens or localities)	50	5,830	4,460	46	13,083	23,469	
Accessions Received as Gifts	50	63	-	20	105	238	
Deaccessions (# of specimens)	-	0	-	0	1	1	
Specimen Database Entry							
(# records)	4,430	2,850	9,034	1,875	1,866	20,055	
Total Specimen Database							
(# records)	38,785	83,960	43,179	119,186	874,652	1,159,762	Anthropology Annotated herbarium collection of Colorado National Monument (1,025 specimens) under a contract with the National Park Service.

University of Colorado Museum of Natural History

Statistical Highlights

Section Highlights

Paleontology

Curators Chin and Eberle successfully completed their comprehensive pre-tenure reviews.

The section led curatorial aspects of the renovation of the Paleontology Hall.

Assistant Professors Chin, Eberle, and Smith continued work on research and collection grants with over \$191k funded by NSF and Interior NPS.

Zoology

Major acquisitions and accession included a herpetology acquisition (~10,000 lots) and CDOW invertebrate surveying accessioning (~750 lots).

Work neared completion on retrospective georeferencing for invertebrates and herps (HerpNet). Most western North America molluscs and a majority of the herps now have a geospatial coordinate (LatLong or UTM) and a measurement of uncertainty associated with the records. This allows the records to be mapped more effectively using computer-assisted tools.

The Museum hired Mariko Kageyama as vertebrate collection manager.

Faculty and Professional Staff Research, Teaching, and Service

	Anthro.	Bot.	Ento.	Paleo.	Zool.	Public	Museum
Number of: Scholarly Publications	8	7	5	8	19		47
Academic Courses Taught	3	3	6	6	5		23
Pub. Lectures/Classes/ Invited/Professional Seminars/Educational & Research Field Trip	11	6	20	43	11	9	100
Estimated Attendees at External Public Lectures	850	104	150	251	200		1555
Students Advised/ Mentored	6	34	18	17	43		118
Professional Conferences/ Workshops Attended	5	1	3	7	14	4	34
Staffed Gallery or CollectionsTours	18	6	9	7	10	1	51
Media, News Coverage	30	0	2	6	2		40

University of Colorado Museum of Natural History

Statistical Highlights

Museum & Field Studies Graduate Program

AY Year Entered (Fall):	2002	2003	2004	2005	2006	5 Yr. Avg.
Number of Applicants	36	57	47	44	56	48.00
Average GPA	3.35	3.47	3.34	3.48	3.4	3.41
Number Accepted	12	12	11	12	18	13.00
Average GPA	3.60	3.37	3.49	3.42	2.78	
Incoming Class/ Students Admitted:	12	9	7	7	9	8.80
In-State Admitted / Avg. of Total	5	5	5	3	4	4.40
Out-of-State Admitted / Avg. % of Total	7	4	2	4	5	4.40
Withdrew				** 2		
Graduated	7	9	7	2	na	
Total Number of MS Students Enrolled	21	24	24	24	17	
Underepresented or first generation			1	1		
Minorities			1	3		
Total # of Certificate Students Admitted	2	0	2	2	3	
Total # of Certificate Students Enrolled	3	2	2	4	5	
Certificate Students Completed	1			* 1		

* One student transferred from Certificate to MFS MS program

** Includes one transferred to Certificate

Section Highlights

Entomology

Funded by a \$292k NSF grant, section staff and students databased over 24,000 specimens of the Gordon Alexander grasshopper collection with locality and collecting information. The specimens are now in the process of being identified, updated in the database, and curated.

The Entomology section received a donation of a superb collection of approximately 4,000 butterfly and moth specimens from Reed Watkins. The fine addition to our excellent holdings in the Lepidoptera represents approximately 1,000 species, primarily North American specimens for the moths, with worldwide representation for the butterflies. We are currently databasing these specimens and incorporating them into the collection.

University of Colorado Museum of Natural History

Grants and Awards Received

PI	Title # <i>Numbered = Collections Improvement grants</i>	Agency	Total Award	
			FY06 Expenditure	Multi-Year
Bonewell, L.	Bats/Inactive Mines Project	CDOW	25,725	77,175
Lekson, S.	Native American Graves Protection & Repatriation Act Consultation	Interior NPS	18,327	30,450
Lekson, S.	NAGPRA: Joint Pueblo	Interior NPS	32,086	73,258
Lekson, S.	Native American Graves Protection & Repatriation Act Consultation	Interior NPS	7,437	10,000
Lekson, S.	1 Southwest Textile Collection Preservation Assessment	NEH	4,055	5,000
Hogan, T.	Floristic Inventory - Northern Colorado Plateau Network	Interior NPS	-	41,642
Ranker, Lederer, Guralnick, Hogan	Collaborative: Linked Databases and Interactive Key for the Vascular Flora of the Southern Rocky Mountain Region	NSF	6,079	67,847
Ranker, T.	Collaborative Research: Origin of the Hawaiian Pteridophyte Flora	NSF	81,068	210,728
Ranker, Kuchel	Dissertation Research: Evolutionary Diversification of Encelia Based on Multiple DNA Sequences	NSF	3,873	9,905
Hogan, T.	Vascular Plant Species List Project	Interior NPS	7,048	7,050
Neale, J.Ramp	Population Genetics of <i>Lasthenia conjugens</i> for Habitat Conservation Plan	LSA Associates, Inc.	8,026	92,000
Bowers, Nufio, Guralnick	2 Curation and Databasing of the Gordon Alexander Othoptera Collection	NSF	89,622	202,201
Bowers, D.	2 Curation and Databasing of the Gordon Alexander: REU Supplement	NSF	1,271	6,000
Chin, Eberle	Collaborative Research: Paleoenvironment and Paleocology of a Late Cretaceous, High-Latitude Locality on Devon Island, Nunavut, Canada	NSF	28,650	235,689
Smith, D.	3 Improvement and Computerization of the Invertebrate Paleontology Collections at the CU Museum of Natural History	NSF	151,637	432,132
Eberle, J.	Paleoclimate and Paleocology in High Latitude, Terrestrial Vertebrate Communities from the Early-Middle Eocene of Ellesmere Island, Nunavut, Arctic Canada	NSF	5,753	43,181
Eberle, J.	Paleoclimate and Paleocology in High Latitude, Terrestrial Vertebrate: Subcontract	NSF	2,005	56,819
Smith, D.	4 Taxonomy and Paleoenvironmental Indications of Fossil Diatoms from the Florissant Formation	Interior NPS	3,830	21,150
Guralnick, R.	Montane Mollusk and Crustacean Surveys in Western Colorado	CDOW	849	-
Guralnick, Krieger	Dissertation Research: The Evolution of Developmental Modules and Lability of Leaf Form in the Fern Genus <i>Pleopeltis</i> (Polypodiaceae)	NSF	5,235	8,530
Guralnick, Anderson, Simms	A Proposal to Examine Endemism and Population Relationships of the Black Hills <i>Oreohelix</i> Snails	NSF	15,160	39,626
Guralnick, R.	Student Travel Grants for the 2004 Meeting of the Taxonomic Data Working Group and Associated Workshops	NSF	(169)	-
Guralnick, R. Knouft, J.	Biogeomancer Island-Net (Phase I): A Web-Accessible Ecological Database for the Study of Global Taxonomic and Environmental Data on Islands	Univ. of CA Berkeley	65,443	125,079
Guralnick, R.	Novel Analytical and Empirical Approaches to the Origin and Prediction of Pathogenicity	NSF	41,846	50,000
Neufeld, Guralnick	WFS Implementation for GBIF	AMNH	46,081	99,486
Guralnick, R.	Student Travel Grants for the 2005 Meeting of the Taxonomic Data Working Group and Associated Workshops, St. Petersburg, Russia, September 11-18, 2005	GBIF	10,517	10,517
Guralnick, R.	Student Travel Grants for the 2005 Meeting of the Taxonomic Data Working Group and Associated Workshops, St. Petersburg, Russia, September 11-18, 2005	NSF	21,636	24,465
Guralnick, R.	Conservation Genetics of the State Threatened and Endangered <i>Sonorella</i> Species in Arizona	NFS	5,053	5,208
Guralnick, R.	The HerpNet Community Informatics Project (HerpNet)	ASU	18,846	60,694
Guralnick, R.	GBIF MAPA: Mapping and Analysis Portal Application	Univ. Kansas	6,486	17,663
Guralnick, R.	CDOW Field Guide	Australian Museum	21,561	34,511
		CDOW	12,422	12,422
	FY2006 (net)		736,912	2,248,271
	<i>Total 4 Collections Improvement Grants</i>		250,415	666,483



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