Jan, 2014

JAMES G. OGG

Professor

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STATISTICS

Birthdate:	25 November 1952, Frederick, Maryland;
Married:	Gabi Ogg (Micropaleontologist researcher; Timescale graphics)
	sons Yasha Michael & Nikolas Christopher Ogg

RESEARCH INTERESTS

Marine Stratigraphy, Paleoceanography, Paleomagnetism, Sedimentology

Main specializations:

Geological time scale calibration and Web-accessible databases Cycle stratigraphy Jurassic and Cretaceous paleoceanography and paleoclimate. Mesozoic magnetostratigraphy

Current research programs (Jan., 2014):

- *TimeScale Creator* database and visualization system (joint product of Purdue engineering and geoscience student teams, Geologic TimeScale Foundation, and International Commission on Stratigraphy)
- Global databases of basin statigraphy (joint projects with different geological surveys and stratigraphy commissions, including Australia, Germany, Canada, China, India, Argentina, etc.)
- Geological Time Scale 2016 (coordinating author, to be published by Elsevier Publ. for International Geological Congress in, Aug'16). [This follows three previous compilations -- Gradstein, Ogg, Smith, Geologic Time Scale 2004 (Cambridge Univ. Presss); Ogg, Ogg, Gradstein, Concise Geologic Time Scale 2008 (Cambridge Uni. Press); and Gradstein, Ogg, Schmitz and Ogg (coordinators), Geologic TimeScale 2012 (Elsevier Publ.)]

Astronomical tuning of the Mesozoic Era

High-resolution correlation of Boreal and Tethyan faunal realms during Middle and Late Jurassic (Bajocian through Tithonian) using integrated magnetostratigraphy, sequence stratigraphy, and cycle-stratigraphy Super-greenhouse conditions and elevated ocean acidity resulting from the Ontong-Java Plateau "super-plume" of mid-Cretaceous

I. GENERAL INFORMATION

A. **PRESENT POSITION:**

Professor, Department of Earth and Atmospheric Sciences, Purdue University, West Lafayette, Indiana

B. EDUCATION

- 1975 B. S. California Institute Technology, in Geology
- 1975 M. S. California Institute Technology, in Planetary Geology
- 1981 Ph.D. Scripps Inst. Oceanography (Univ. Calif. at San Diego), in Oceanography

C. PREVIOUS POSITIONS

Scripps Institution of Oceanography (Geological Research Division)

- 1975-1981 Research Assistant and Teaching Assistant
- 1983-1984 Research Associate
- 1984-1986 Assistant Researcher II (assistant professor on research contract)

<u>University of Wyoming</u> (Department of Geology and Geophysics)

- 1981-1983 Postdoctoral Fellowship, Paleomagnetics Laboratory,
- 1983-1984 Postdoctoral Research Associate (jointly with Scripps Inst. Ocean.)
- 1984-1986 Adjunct Assistant Professor

<u>Purdue University</u> (Department of Earth, Atmospheric and Planetary Science)

- 1986-1990 Assistant Professor
- 1990-1995 Associate Professor
- 1995- Professor

D. AWARDS AND HONORS

1. Professional awards

Geological Society of America:

- (1) Fellow of GSA (Oct, 2010)
- (2) Mary B. Ansari Best Reference Work Award (Nov., 2006)
 [For The *Geologic Time Scale 2004*; by Gradstein, Ogg and Smith]
 \$500 from GSA's Geoscience Information Society (GSIS)
- (3) Exceptional Reviewer for Geology (Dec, 2007)

Education Ministry of China

2013-2017: **Overseas Top Scholar Fellowship** ((annual allocation of 2 months salary and all expenses for 5 years),

Appointed as Overseas Top Scholar **Professor** faculty member by Chinese University of Geosciences at Wuhan, China. The award is hosted by the Chinese State Key Laboratory of Biogeology and Environmental Geology. The annual 10-week stay will be during April-May-June for 2014 through 2017 (or longer).

SEPM:

SEPM Excellence in Oral Presentation, AAPG Annual Convention, San Antonio, TX (April, 2008; to Linda Hinnov and James Ogg)

American Association of Publishers

2012 -- PROSE Award (Second prize) in the category of Multi-volume Reference/Science for: *The Geologic Time Scale 2012* (Felix M. Gradstein, James G. Ogg, Mark D. Schmitz, and Gabi M. Ogg; 2-volumes, 1100 pages). [The 2012 PROSE awards had 518 entries from a total of 70 publishers across the United States and abroad.]

2. Purdue University awards

- (1) Undergraduate Advising (College of Science, Feb., 2008)
- (2) Graduate Student Mentoring (College of Science, Feb., 2008)

3. International Recognition (selected; most recent at top)

- China: 2013-2017 See above for **Overseas Top Scholar Professor** faculty member by Chinese University of Geosciences at Wuhan, China (provides 10 weeks salary, of which 1 month is academic-salary savings to Purdue, and all expenses)
 - 2010: **Visiting Professor** (Nanjing Institute of Paleontology and Stratigraphy; Nanjing, People's Republic of China; mid-July to mid-Aug, 2010) for expense-paid 4-week research stay
 - First International Symposium on Quantitative Stratigraphy and Palaeobiology and GBDB Summer Course -- Invited day-long short-course on *TimeScale Creator* as part of (Nanjing, China, 20-27 July 2010)

8th International Congress on the Jurassic System – Chair of Plenary Session, Invited Keynote address, and Member of Scientific Committee (Shehong of Suining, Sichuan Province, China; 9-13 August 2010)

1986-1987: Invited researcher, Chinese Academy of Geological Sciences, People's Republic of China (Oct-Nov, 1986; and Aug, 1987)

Australia:

- 2014: Seven-month position as visiting research geologist (includes 5-month Academic sabbatical) with Geoscience Australia (late June-early January, 2015; travel/lodging expenses, plus 6-week salary compensation for the summer-salary portion)
- 2013: Summer-research geologist with Geoscience Australia (July-early Aug, 2013; all expenses, plus salary compensation)
- 2012: Summer-research geologist with Geoscience Australia (late July-early Aug, 2012; all expenses, plus salary compensation)
- 2009: Summer-research geologist with Geoscience Australia (May-June, 2009; all expenses, plus salary compensation)
- 2008: Summer-research geologist with Geoscience Australia (May, 2008; all expenses, plus salary compensation)
- 2007: Visiting Fellow, Research School of Earth Sciences, The Australian National University, Canberra (Jan-May, 2007 = 5-month research leave).
- Belgium: 2014: Invited 1-week short course on TSCreator and Earth-history visualization at Leuben University (March, 2014)
- France: 2008: External PhD Reviewer (University of Paris; Feb-March, 2008)
- Germany: 2006: Visiting professor, GeoForschungsZentrum Potsdam, Potsdam, Germany (Aug-Dec, 2006 = 5-month Academic sabbatical)
- New Zealand: 1999: Visiting professor, Institute of Geological and Nuclear Sciences, Lower Hutt, New Zealand (Jan-May, 1999 = Academic sabbatical)
- England: 1997-1998: Visiting professor, Dept. of Earth Science, Oxford University, Oxford, England (May-June, 1997; *and* June, 1998)
- Japan: 1989: Visiting professor, Dept. of Geology and Geophysics, Kochi University, Kochi, Japan (May-June, 1989)
- Italy: 1988: Visiting distinguished professor and invited short course (magnetic stratigraphy), Dipartmento Scienze della Terra, Universita della Calabria, Cosenza, Italy (Dec., 1988)
- **4. Invited International Presentations or Convener** (major; others are listed at end of *Professional activities*)
- 2013: Jurassic Symposium V (Trelew, Argentina), Invited Keynote (Jurassic TimeScale), with all travel paid (15-21 Apr 2013)
 - Strata 2013 (Lisbon, Portugal), Invited Co-convener of a session on integrated stratigraphy (July 2013)
 - SEPM: Geologic Solving with Microfossils III Conference (Univ. Houston, Houston), invited 4-hour Workshop "TimeScale Creator and the 2012 Time Scale" (9-14 Mar 2013)
 - 46th Annual Palynology Meeting (N.Amer. Micropaleontology Society; Canadian Association of Palynologists; American Assoc. Stratigraphic Palynology); invited 4-hour Workshop "TimeScale Creator and the 2012 Time Scale" (San Francisco, 20-24 Oct 2013)
- 2012: Geol. Soc. Amer. Annual Conference, Convener of two sessions
 34th International Geological Congress, Co-convener of session (Brisbane, Aug, 2012)
 Geological Society of London conference on "High Fidelity: The Quest for Precision in Stratigraphy and its Applications", London, 16-17 May 2012 -- *Geologic Time* Scale 2012: overview – James Ogg PLUS: Co-leader of Mesozoic of Dorset Coast field excursion (17-20 May)

- Geologic Time Scale symposium (University of Copenhagen and Maersk Petroleum, Copenhagen, Denmark, 8-11 Oct 2012) – Keynote "Geologic Time Scale 2012: overview", and contributed talk "Earth history visualization system"
- 2010: First International Symposium on Quantitative Stratigraphy and Palaeobiology and GBDB Summer Course -- Invited day-long short-course on *TimeScale Creator* as part of (Nanjing, China, 20-27 July 2010)
 - 8th International Congress on the Jurassic System Chair of Plenary Session, Invited **Keynote** address ("Late Jurassic Time Scale"), and Member of Scientific Committee (Shehong of Siunng, Sichuan Province, China; 9-13 August 2010) European Geophysical Union, Invited co-convener, Vienna (May, 2010)
- 2008: 33nd International Geological Congress, Invited co-convener and **keynote**, (Oslo. Aug, 2008)
- 2004: 32nd International Geological Congress, Invited co-convener and **keynote**, (Florence, Aug, 2004)
- 2000: 31tst International Geological Congress, Invited co-convener and **keynote** (Rio de Janeiro, Aug, 2000)
- 1998: European Geoscience '98, Invited keynote address (Keele, England, April, 1998). Invited short course on quantitative stratigraphy (cyclic sediment portion), Copenhagen, Norway (May, 1998).
- 1996: Invited short course on cyclic sediments, Oslo, Norway (May, 1996)
 29th International Geological Congress, Invited speaker and short-course (Beijing, China, Aug, 1996).
- 1995: Invited speaker, Ocean Drilling Stratigraphic Database, Bremen, Germany (Dec., 1995)
- 1992: 4th International Conference on Paleoceanography, Invited speaker (Kiel, Germany, Sept, 1992), with 1000 DM honorarium.
- 1984: 27th International Geological Congress, Invited speaker (Moscow, July, 1984) plus, American Geological Institute Travel Award to this 27th IGC.

E. PROFESSIONAL AND SCHOLARLY ASSOCIATIONS

1. Current Activities with INTERNATIONAL COMMISSION ON STRATIGRAPHY:

 International Commission on Stratigraphy (International Union of Geological Sciences) Secretary General (2000-2008)
 Subcommission on Stratigraphic Information – Chair (2008-2012)
 Subcommission on Jurassic Stratigraphy -- Voting member (2000-2016); Corresponding member (1984-2000)
 Subcommission Secretary (2012-2013)
 Chairman/coordinator, Working Group on Jurassic Magnetostratigraphy (1984-)
 Member, Oxfordian-Kimmeridgian Working Group (1985-)

Kimmeridgian-Tithonian Boundary Working Group (1989-)

Working Group on the Jurassic-Cretaceous Boundary (member, 1985-)

Committee on Quantitative Stratigraphy (member, 1987-2000)

2. Other Current International Activities:

Geologic TimeScale Foundation – serving as Executive Director (2009-)

Serving on Board of Directors (2009-)

- DOSECC (*Continental drilling*) Board of Directors (representing Purdue University) (1999-Spring, 2010; and again from 2012 -)
- Editorial Board, Newsletters on Stratigraphy (2008-)
- Editorial Board, Journal of Earth Systems Science Education (1999-)
- CHRONOS Board of directors (2004-Present) (*www.chronos.org*; a multi-institution program funded by NSF) for developing major databases for Earth history research and education. Websites: *www.eas.purdue.edu/chronos/* for overview.
- PaleoStrat Advisory board of PaleoStrat (www.paleostrat.org) for outcrop-based stratigraphic data (funded by NSF). Invited to serve, beginning in Jan 2007.

3. Past National and International Professional Activities

DOSECC (Continental drilling) Science Planning Committee (2004-2007)

- Associate Editor: Journal of Geophysical Research (3-year term, 1994-1997)
- U.S. Science Advisory Committee (USSAC; under NSF) to Ocean Drilling Program and Joint Institutions of Oceanography [NSF contractor for Ocean Drilling Program] (3-year term, 1995-1998)
- Circum-Pacific Jurassic Research Group, International Geological Correlation Program (Project #171) (member, 1983-88).
- Global Sedimentary Geology Program (International Union of Geological Sciences) (1987-1991)
- Cyber-Infrastructure Task Group for the Earth Sciences (2004)
- *Glossary of Geology*, Assistant editor (*stratigraphy*) for 2005 edition (American Geological Institute)

Contributing editor, Encyclopedia of Stratigraphy (2008-2011)

SEPM Electronic-Publishing Task Group (2003-2005)

ICS Working Group on the Triassic-Jurassic Boundary (1986-2008)

4. International Ocean Drilling Cruises and Expeditions

Served on 10 DSDP-ODP legs (1980-2004) in capacities of paleomagnetist, sedimentologist, and core-log integration specialist:

- DSDP Leg 76, Western North Atlantic (Paleomagnetist and Sedimentologist); 1980 (Oct-Dec) DSDP 89, Western Central Pacific (Paleomagnetist); 1982 (Oct-Nov)
- DSDP 93, Western North Atlantic (Sedimentologist and Paleomagnetist); 1983 (May-June)
- ODP Leg 103, Eastern North Atlantic (Paleomagnetist and Sedimentologist); 1985 (Apr-June)
- ODP Leg 123, Indian Ocean and NW Australia (Stratigrapher and Paleomagnetist); 1988 (Aug-Nov)
- "Lost Ocean Expeditions"; Nepal Himalayas, Mesozoic passive margin stratigraphy and paleomagnetism (international group paleontologists and stratigraphers, in coordination with Ocean Drilling Program Legs 122-123); 1988 (Mar-Apr) and 1991 (Mar-Apr)
- ODP Leg 129, Western Equatorial Pacific, (Stratigrapher and Sedimentologist); 1989 (Nov-Jan)
- ODP Leg 144, Central Pacific (Sedimentologist and Core-Integration Specialist); 1992 (May-July)
- Jurassic/Cretaceous Boundary (Mexico, California, Spain); sponsored by NSF through University of Texas at Dallas and by University of Mexico (Stratigrapher); 1994 (May-June)

ODP Leg 171, Atlantic Shelf of Florida (Stratigrapher and Paleomagnetist); 1997 (Jan-Feb)

ODP Leg 192, Ontong Java Plateau, Equatorial Pacific (Stratigrapher); 2000 (Sept-Nov)

ODP Leg 207, Demerara Rise, Equatorial Atlantic (Paleomagnetist); 2003 (Jan-Mar)

5. Current Scholarly Associations

Fellow in: Geological Society of America (GSA) [2010 onward] Membership in: American Geophysical Union (AGU) Society of Sedimentary Geology (SEPM) American Association for the Advancement of Science (AAAS)

II. TEACHING

A. TEACHING ASSIGNMENTS AND COURSE EVALUATIONS AT PURDUE (1986-2012)*

Year	Course	Title	Credit,	Enroll	Student	Course	Instructor
1000 Fall	Case 101	Ossersertenby		010		Evaluation	Evaluation
1900, Fall	Geos 104	Sodim & Strot	3, Leci.	210	F-31	4.0	1 5
1907, Spi	Geos 474		4, Lect-Lab	10	J-31-G	4.2	4.5
1907, Fall	Geos 104		3, Leci.	190		3.7	3.7
1900, Spi	Geos 474	Sed Detrology	4, Lect-Lab	10	J-SI-G	4.0	4.9
1000 Fall	Geos 591K	Seu. Pellology	3, LectLab	4	J-31-G		
1900, Fall		Paleomagnetics	3, LectLab	5 F	J-SI-G	4.0	4.0
1969, Spi	Geos 474		4, Lect-Lab	5 402	J-SI-G	4.3	4.3
1989, Fall	Geos 104		3, Lect.	183	F-51	3.7	3.9
1990, Spr	Geos 474	Seam.&Strat.	4, Lect-Lab	0	J-SI-G		
	Geos 591R	Paleoclimate	3, Lect.	3,+5 audit	J-Sr-G	0.4	0.0
1990, Fall	Geos 104	Oceanography	3, Lect.	258	F-Sr	3.4	3.6
1991, Spr	Geos 474	Sedim.&Strat.	4, Lect-Lab	5	J-Sr-G		.
1991, Fall	Geos 104	Oceanography	3, Lect.	393	F-Sr	3.3	3.4
1992, Spr	Geos 474	Sedim.&Strat.	4, Lect-Lab	4	J-Sr-G	- -	- -
1992, Fall	Geos 104	Oceanography	3, Lect.	363	F-Sr	3.5	3.7
1993, Spr	Geos 4/4	Sedim.&Strat.	4, Lect-Lab	4	J-Sr-G		
	Geos 104	Oceanography	3, Lect.	193	F-Sr	3.6	3.6
1993, Fall	Geos 104	Oceanography	3, Lect.	300	F-Sr	3.6	3.8
1994, Spr	Geos 474	Sedim.&Strat.	4, Lect-Lab	8	J-Sr-G		4.8
	Geos 391	Global Change Modeling	3, Lect-Lab	11	J-Sr-G	4.1	4.2
1994, Fall	Geos 191	Home Planet	3, Lect	3	J-Sr-G		
	Geos 104	Oceanography	3, Lect.	290	F-Sr	3.1	3.1
1995, Spr	Geos 391	Global Change Modeling	3, Lect-Lab	13	J-Sr-G	4.3	4.2
	Geos 474	Sedim.&Strat.	4, Lect-Lab	20	J-Sr-G	4.9	4.7
1995, Fall	Geos 104	Oceanography	3, Lect.	270	F-Sr	4.1	4.1
1996, Spr	Atms 420	Global Change	3, Lect-Lab	10	J-Sr-G		3.9?
	Geos 474	Sedim &Strat	4 Lect-Lab	20	J-Sr-G		45
1996. Fall	Geos 104	Oceanography	3. Lect.	220	F-Sr		4.1
,			,	-	-		

Notes:

Teaching loads in 1988 Fall, 1989 Fall, and 1991 Spring were reduced because of research commitments which provided academic salary.

Evaluation of teaching is taken from the Instructional Evaluation Summary: Question #10 ("When compared to other instructors I have had, this instructor was ...") and Question #15 ("When compared to other courses I have had, this course was ..."), in which the highest rating is a "5", a "good" rating is "4", and an "average" rating is "3". In courses with enrollments less than 6, the responses are not tabulated by the department, therefore the ratings were computed directly from the returned questionaires. For comparison, the departmental averages for Instructor Evaluation for all EAS faculty from 1985-1993 are: 3.7 for 100-level courses, 4.4 for undergraduate courses (200-400), and 4.5 for graduate courses.

Course evaluation statistics for sessions having enrollments less than 5 are not tabulated by the Department; therefore the averages (in *italics*) are compiled directly from the computer forms. Dual-listed courses (e.g., Geos 391/FNR 498 in Spring, 1995) had only evaluations for the Geos portion of enrollment provided to the Department.

1997, Spr	Atms 420	Global Change Modeling	3, Lect-Lab	20	J-Sr-G		
	Geos 474	Sedim.&Strat.	4, Lect-Lab	16	J-Sr-G		
1997. Fall	Geos 104	Oceanography	3. Lect.	250	F-Sr		
1998 Spr	Geos 104	Oceanography	3 Lect	198	F-Sr		41
1000, O pi	Geos 174	Sodim & Strat	1 Lect-Leb	8			4.1
	Atma 420	Clobal Change	4, Leui-Lab	0	J-SI-G		4.0
1990, Fall	Alms 420	Modeling	S, Lect-Lab	4	J-5I-G		4.0
	Geos 104	Oceanography	3, Lect.	239	F-Sr		4.1
1999, Spr	(Sabbatical						
1999, Fall	Atms 420	Global Change Modeling	3, Lect-Lab	3	J-Sr-G		
	Geos 104	Oceanography	3, Lect.	220	F-Sr		
2000, Spr	Geos 474	Sedim.&Strat.	4, Lect-Lab	8	J-Sr-G		
2000, Fall	EAS 104	Oceanography	3, Lect.	167	F-Sr	3.6	4.0
	EAS 109	Dvnamic Earth	3. Lect.	75	F	4.1	4.3
2001. Spr	EAS 474	Sedim.&Strat.	4. Lect-Lab	5	J-Sr-G	4.7	4.9
2001, 001	EAS 420	Global Change	3, Lect-Lab	3	J-Sr-G	5.0	5.0
-		Modeling					. –
2001, Fall	EAS 104	Oceanography	3, Lect.	145	F-Sr	4.3	4.7
	EAS 109	Dynamic Earth	3, Lect.	75	F	3.4	4.2
2002, Spr	EAS 474	Sedim.&Strat.	4, Lect-Lab	5	J-Sr-G	4.7	4.9
	EAS 591f	Remote Sensing.	3, Lect-Lab	6	J-Sr-G	n/a	n/a
2002, Fall	EAS 104	Oceanography	3, Lect.	136	J-Sr-G	4.3	4.8
	EAS 109	Dynamic Earth	3, Lect.	73	F	3.9	4.6
	EAS 473	,	3. Lect	2	F-Sr	n/a	n/a
2003 Spr	EAS 390	Field Methods	3 Lect-Lab	3	J-Sr	n/a	n/a
2003 Fall	EAS 104	Oceanography	3 Lect	138	F-Sr	47	4 1
2000, 1 all		Dynamic Earth	3 Loct	61	F	4.7 1	33
2004 Spr		Sodim 8 Strot	J, Leot Lob	0		4.1	4.0
2004, Spi	EAS 474		4, Leui-Lau	400	J-31-G	4.7	4.9
2004, Fall	EAS 104	Oceanography	3, Lect.	132	F-51	3.9	4.2
	EAS 109	Dynamic Earth	3, Lect.	68	F	4.2	4.5
2005, Spr	EAS 191	Oil !	3, Lect.	24	F-Sr	4.3	4.8
2005, Fall	EAS 104	Oceanography	3, Lect.	135	J-Sr-G	4.0	4.4
	EAS 151	Oil !	3, Lect.	24	F-Sr	4.6	4.6
2006, Spr	EAS 474	Sedim.&Strat.	4, Lect-Lab		J-Sr-G	3.7	4.1
2006, Fall	(Sabbatical						
2007, Spr	(Sabbatical						
		Ossenserenter		140			4 5
2007, Fall	EAS 104	Oceanography	3, Lect.	140	J-SI-G	4.1	4.5
	EAS 151		3, Lect.	54	F-Sr	4.2	4.3
2008, Spr	EAS 391	Energy (joint)	3, Lect.		F-Sr		
2008, Fall	EAS 104	Oceanography	3, Lect.	140	J-Sr-G	3.8	4.1
	EAS 151	Oil !	3, Lect.	75	F-Sr	4.1	4.3
	ECE 379	Vert. Integr. Proj.	2, Lect-Lab	5	J-Sr-G		
2009, Spr	EAS 591	Geoinformatics	4. Lect-Lab	15	J-Sr-G	[ioint]	
 , _ ,	FAS 474	Sedim &Strat	4 Lect-Lab		J-Sr-G	[]0]	
		Vert Integr Proi	2 Loct-Lab	5			
		Vent. Integr. Proj.	2, Leui-Lau	120	J-SI-G	27	4.4
2009, Fall	EAS 104	Oceanography	3, Lect.	129	J-SI-G	3.7	4.1
	EAS 151		3, Lect.	43	⊢-Sr	4.0	4.1
	ECE 379	Vert. Integr. Proj.	2, Lect-Lab	5	J-Sr-G		
2010, Spr	EAS 591	Geoinformatics	4, Lect-Lab	15	J-Sr-G	[joint]	
	ECE 379	Vert. Integr. Proj.	2, Lect-Lab	5	J-Sr-G		
2010, Fall	EAS 104	Oceanography	3, Lect.	122	J-Sr-G	3.9	4.3

	EAS 301 ECE 379	Oil ! Vert. Integr. Proj.	3, Lect. 2. Lect-Lab	35 5	F-Sr J-Sr-G	4.5	4.7
2011, Spr.	EAS 474	Sedim.&Strat	4, Lect-Lab	C C	J-Sr-G	3.3	4.0
•	ECE 379	Vert. Integr. Proj.	2, Lect-Lab	4	J-Sr-G		
	ECE 379	Vert. Integr. Proj.	2, Lect-Lab	5	J-Sr-G		
2011, Fall	EAS 104	Oceanography	3, Lect.	48	J-Sr-G	4.4	4.1
	EAS 301	Oil !	3, Lect.	88	J-Sr	4.3	4.4
	ECE 379	Vert. Integr. Proj.	2, Lect-Lab	5	J-Sr-G		
2012, Spr	ECE 379	Vert. Integr. Proj.	2, Lect-Lab	5	J-Sr-G		
2012, Fall	EAS 104	Oceanography	3, Lect.	72	J-Sr	3.6	4.1
	EAS 301	Oil !	3, Lect.	116	J-Sr	4.3	4.5
	ECE 379	Vert. Integr. Proj.	2, Lect-Lab	5	J-Sr-G		
2013, Spr.	EAS 474	Sedim.&Strat	4, Lect-Lab	11	J-Sr-G	4.0	4.0
	ECE 379	Vert. Integr. Proj.	2, Lect-Lab	5	J-Sr-G		
2013, Su	EAS 391	Dolomite Field	3, Field Lab	6	J-Sr-G		
2013, Fall	EAS 104	Oceanography	3, Lect.	80	J-Sr	3.7	4.5
	EAS 301	Oil !	3, Lect.	114	J-Sr	3.9	4.3
	ECE 379	Vert. Integr. Proj.	2, Lect-Lab	6	J-Sr-G		
2014, Spr.	EAS 474	Sedim.&Strat	4, Lect-Lab	15	J-Sr-G		
	ECE 379	Vert. Integr. Proj.	2, Lect-Lab	5	J-Sr-G		

 Every semester (both Fall and Spring) from 2008 through Spr. 2014, I co-teach a section of Engineering "VIP" (Vertical Integrated Projects") course -- ECE 379/479. My section typically has 3 to 6 students. I also co-fund the visiting coinstructor (Aaron Ault) for his assistance in this course.

Additional outreach course:

	5		
Spring 2010	OIL – WALLA	ca. 50	
	course (12 hr)		

NOTE: Special Honors sessions of Oil, Independent or guided study courses (EAS 391; 591) for graduate or undergraduates are not included above, nor are the Masters/Doctorate research courses.

B. SELECTED DISCUSSION OF COURSES

"Oil !". Originally taught as EAS 191 (Spring) with enrollment of 24 (limited by room size), approved a large EAS 151 course for Fall 2005, and currently capped at 80 (room size). This as intended to become a dual-listed course with Liberal Arts (political science, economics). However, it was now changed to EAS 301, as a "*Great Issues*" course.

Oceanography (EAS 104) – enrollment is capped by room size to 140. [The 2011 offering suffered from being assigned to a dismal 4:30-5:20 pm slot.]

III. OTHER CONTRIBUTIONS TO UNDERGRADUATE EDUCATION

A. INDEPENDENT OR TUTORIAL COURSES

- EAS 104 "Oceanography" is an independent study program designed by James Ogg and administered through the Center for Instructional Research. There have been students taking this course every semester since 1988; but this was discontinued in 2011, because Purdue went to on-line offerings, rather than self-directed paper ones (which was this one).
- Geos/EAS 591 directed-study courses in "Marine Biology" (Spring, 1998), "Simulating the Earth", "Marine Mammals", "Modeling the Earth", "Applications of Paleomagnetism", "Cycle Stratigraphy" (Summer, 1998), etc. have been provided to certain undergraduate and beginning graduate students who wish to pursue advanced topics in the marine sciences or other fields.
- Graduate independent studies, research, and theses in paleoclimate, sedimentology, stratigraphy, and paleomagnetism have also been supervised each semester.

B. UNDERGRADUATE RESEARCH PROGRAM

Earth and Atmospheric Science:

- 1987 Martha Sutula -- Pacific plate motion (senior project)
- 1988 Russell Schwab -- Oxfordian magnetostratigraphy; paleomagnetics data analysis programs
- 1990 Beth Hunt -- Statistics of paleomagnetic data
- 1992 Brian Greer -- Stratigraphy of Cretaceous guyots of the Pacific
- 1994-5 Richard Jones -- Visualization of Earth Systems
- 1995 Diane Jones -- Comprehensive Mesozoic time scale
- 1997 John Foster -- Eocene-Paleocene magnetic time scale (including Oxford visit)
- 1998 Charlene Fricker -- Paleozoic time scale
- 2001-2004 Hilary Smith Mid-Cretaceous super-greenhouse
- 2002 Megan Martz Cretaceous carbon cycle
- 2004-2005 Edward Webb GSSP database
- 2004-2005 Hilary Hubard GSSP database
- 2004-2006 Justin Fitch Paleozoic integrated stratigraphy

2003-2009 Grace Conyers - GSSP and Phanerozoic databases, Human time scale

Grace Conyers <gconyers@gmail.com> – Undergraduate student (EAS); now graduate student in EAS
 – worked part-time from September 15, 2007 to August, 2009 on datasets for *TimeScale Creator* visualization system (sea-level curves; geochemical trends; Pleistocene environmental cycles;
 Russian biostrat).

2007-2010 Alex Huang – Australian and New Zealand databases

 Alex Huang <ahuang@purdue.edu> – Undergraduate student (EAS) – worked part-time from September 15, 2007 to May, 2010 on datasets for *TimeScale Creator* visualization system (Australia regional bio-lithostratigraphy and cycles; New Zealand regional bio-lithostratigraphy). Received a first-place in Technology division at the Purdue University Undergraduate Exposition for his Australian earth-history database poster in April 2008; received 2nd place at the Purdue

University Undergraduate Exposition for his dinosaur-evolution database poster in April 2009. SUPPORT – Half from main grant, half from Purdue Summer Undergrad Research Foundation.

2008-2008 Jessica Griffin – Arctic and North Sea databases

 Jessica Griffin <griffijd@purdue.edu> – Undergraduate student (EAS) now Purdue graduate student Fall 2008 onwards – worked part-time from May 15, 2008 to present on datasets for *TimeScale Creator* visualization system; including Arctic regions, and Austria-Germany regional biolithostratigraphy and cycles.

2008-2009 Frederick Chu – Phanerozoic genera (32,000) database

 Frederick Chu <frederick.chu.m@gmail.com> -- Undergraduate student (liberal arts) working part-time from August 2008 to August, 2009 on datasets for TimeScale Creator, including Cenozoic oxygenisotope curves, large igneous provinces, microfossil datums, ranges of marine genera (30,000; updated from Sepkoski compilation), Gulf of Mexico biostratigraphy, and other sets.

2008-2011 Jen Hui Chen – Russian and India databases; Canada transects

 Jien Hui Chen <chen106@purdue.edu> – Undergraduate student (computer science) – worked parttime from September 15, 2007 to May 2010 on datasets for *TimeScale Creator* visualization system (mainly Russian regional biostratigraphy for entire Phanerozoic), and on New Zealand and Canada transects.

2008-2009 Kyle Johansen – TS-Creator website

• *Kyle Johansen* <kjohanse@purdue.edu>-- Undergraduate student (nuclear engineering) working on TS-Creator website and New Zealand datasets; Dec 2008-Dec 2009.

2008-2009 Josh Vipat – India and Mideast databases

• Josh Vipat <avipat@purdue.edu>-- Undergraduate student (EAS) working on India and on Middle East datapacks. Dec 2008 – August 2009.

2009-2010 Shawn Dedeker -- Indiana and Canada datapacks

• **Shawn Dedeker** <sdedeker@purdue.edu>-- Undergraduate student (EAS) working part-time on Indiana and Canada datapacks for Earth history; August, 2009 to March, 2010.

2009-2009 Tyler Chishollm – New Zealand transects

• *Tyler Chisholm* <tschisho@purdue.edu>-- Undergraduate student (EAS) working part-time on New Zealand transect datapack; August, 2009 to Dec, 2009 (then left for NASA internship).

2009-2011 Jon Boening – Canada datapacks; Russian stratigraphy

 Jon Boening <jbuening@purdue.edu> -- Undergraduate student working part-time from August 2009 to present on datasets for TimeScale Creator, especially for Canada Arctic. His poster in Spring 2010 Purdue University Undergraduate Exposition (Mar, 2010) on the Canada datapacks was selected for participation in the Dean of Science's Advisory Committee meeting in April, 2010.

Jon's Purdue Undergrad Research poster (Mar, 2010) on the Canada datapacks was selected for participation in the Dean of Science's Advisory Committee meeting in April, 2010

2010-2010 Brenton Chentik – New Zealand datapack

• **Brenton Chentik** <bchentni@purdue.edu>-- Undergraduate work-study student (EAS) working parttime on New Zealand transect and Canada datapacks for Earth history; Jan, 2010 to April, 2010.

2010-2010 Micah Chase – Transect database conversion system (manual, etc.) 2010-2010 Chris Stewart – Russian stratigraphy datapack 2010-2011 Colleen Klockow – Ancient civilization datapack

• **Colleen Klockow** <clockow@purdue.edu> -- Undergraduate student (EAS) working part-time from Jan 2010 on a human-history database, including civilization episodes and climate cycles.

2010-2010 Juan Herrera

- Juan Herrera <jsherrer@purdue.edu> -- Graduate student (PhD program EAS) working with me on applying our new cycle-time scale to Late Jurassic sequence stratigraphy. We discovered that the famous Dorset "type sequences" are 400-kyr oscillations; and have a poster on this exciting understanding of the cause of such sequences at the Jurassic Congress (early Aug, 2010). Dec, 2009 to Aug, 2010, and probably longer as we prepare the publications.
 - 2010-2011 Kristen Werling Canada Arctic datapack
 - 2010-2012 Justin Pflug New Zealand transect datapack; foram-evolution; North Sea transect suite
 - 2011-2011 Dane Dudley New Zealand transect datapack
 - 2011-2011 Jane Block Belgium datapack; vertebrate evolution
 - 2011-2012 Cecilia Shaver Indian plate and Middle East datapacks; Libya
 - 2011-2012 Ashley Murray Mayan-collapse module
 - 2011-2012 Hugo Chuan SE Asia datapack
 - 2012-2014 Justin Wright USA shale-oil stratigraphy
 - 2012-2012 Alex Torres Denmark stratigraphy

With College of Engineering (Vertical Integrated Projects; etc.)

2004-2009 Adam Lugowski - TimeScale Creator JAVA software system

- Adam Lugowski <alugowski@gmail.com> Graduate Student (Univ. Calif. Santa Barbara) worked part-time from September 15, 2007 to Dec, 2009 on *TimeScale Creator* visualization system for displaying stratigraphic data, including cycle-stratigraphy sections and astronomical tuning of geologic stages. Accomplished a related display system for *PaleoStrat*, which was intended to serve as our archive of cycle stratigraphy datasets. Worked with me at Geoscience Australia (Canberra), mid-May to mid-June 2008 and mid-May to end-June 2009, on enhancing stratigraphic column options and regional transects. SUPPORT Majority of NSF supplemental grant for his time/travel for the PaleoStrat project, plus part of the main grant for his software assistance/enhancement.
- 2008-2009 Brendon Caulkins -- dynamic website for Earth-history (VIP project)
- **Brendon Caulkins**

 bcaulkin@purdue.edu>-- Undergraduate student (engineering) working on dynamic website for Earth-history reference data and on TS-Creator programming from August, 2008 to Dec, 2009.
- 2008-2009 Catherine Brown -- dynamic website for Earth-history (VIP project)
- *Catherine Brown* <kateb@purdue.edu>-- Undergraduate student (computer science) working on dynamic website for Earth-history reference data and on TS-Creator programming from August, 2008 to Dec, 2009.
- 2009-2009 Sophia Dafinon -- dynamic website for Earth-history (VIP project)
 Sophia Dafinon <sdafinon@purdue.edu>-- Undergraduate student (computer science) working only four months on dynamic website for Earth-history reference data and on TS-Creator programming from August, 2009 to Dec, 2009.

- 2010-2010 Bradley Van Dyk Geographic user interface
- **Bradley Van Dyk** <bradvandyke@gmail.com>-- Undergraduate computer student working during summer 2010 to make a geographic user-interface for accessing cycle-stratigraphy and other locality-specific columns within the TS-Creator system; May, 2010 to Sept, 2010.
 - 2010-2011 Kee Shen Quah– Web-based user interface
 - 2011-2012 Andrew Balmos Web-based user interface
 - 2010-2014 Nag Varun Chunduru "Google Earth-type" zoom system; Depth-age conversion routines; international-language system for global use, on-line datapack makers, data-mining for Earth history (he is very good!)
 - 2014-2015 Zsika Philips Web-based user interface

Undergraduate Instructional staff partially supported on current NSF grant or on Digital TimeScale funding; 2008-current:

2009-2014 Aaron Ault <ault@purdue.edu> -- Teaching assistant (College of Engineering), August 2008-present; of which we paid 15% of his salary. Supervised the computer science/engineering students ("VIP project") working on dynamic websites and geographic interfaces for the Earth-history information systems.

"Publications" -- Mainly, their compilations are immediately installed on the public education and research-reference websites of the International Subcommission on Stratigraphic Information – www.tscreator.org; OR https://engineering.purdue.edu/Stratigraphy/tscreator/; OR http://stratigraphy.science.purdue.edu/)

- POSTERS by Undergrads (as first-author):
 - SHELL-Day (2011) at Purdue had 5 of these by Justin Pflug, Cecilia Shaver, Nag Varun Chunduru, and Gangi Palem
 - GSA-Annual meeting (Minneapolis, Nov'11) had a group poster (the above undergrads, plus Andrew Balmos)
 - SHELL-Day at Purdue (Sept'12) had 5 posters by Justin Pflug, Cecilia Shaver, Nag Varun Chunduru, and Gangi Palem
 - GSA-Annual meeting (Nov'12) had a group poster (the same above undergrads, plus Andrew Balmos)
- C. **OUTREACH ACTIVITIES** (K-12; general undergraduate; and geoscience public) *only* 2007-2008 is summarized below.

1. Printed Material on Earth's History

Since 2004, largely as part of our role in the International Commission on Stratigraphy then with the Geologic TimeScale Foundation, we (Jim Ogg & Gabi Ogg) have concentrated on global distribution of free or "at cost" teaching resources for Earth History. Funding for production of these products have been sponsored by a consortium of petroleum companies (ExxonMobil, ChevronTexaco, BP, Statoil, Shell, ENI, Conoco), Australian National University, Geoscience Australia, the International Union of Geological Sciences (IUGS, headquartered in Norway) and EAS/Purdue. Some are joint products to be distributed by UNESCO (Commission for Geologic Map of the World).

- Poster "*History of the Earth*" (geologic time scale, life-through-time, and global reconstructions). This was one of our contributions for the United Nations 2008 "International Year of Planet Earth". The target audiences are secondary schools.
 - 500 copies were printed/distributed in March-April 2007 through Australian National University (who funded it)
 - 2000 copies were printed/distributed in summer 2007 through Geoscience Australia (who funded it).
 - 3000 were printed/distributed in Nov'07-May'08 through EAS/Purdue (funded by EAS, with partial support from IUGS) 500 at GSA 2007, 300 at AGU, 300 for Indiana geoscience teachers conference, 500 at GSA 2008, and 1000 intended for national distribution through AGI or NAGT.
 - Another printing with both English and French versions will be done by IUGS and the UNESCO Commission for the Geologic Map of the World for the United Nations 2008 "International Year of Planet Earth". I am invited to Paris (March, 2008) to prepare this with the UNESCO commission.
- Poster "A Geologic Time Scale 2008" (3x2 feet; prepared and printed in coordination with UNESCO Commission for the Geologic Map of the World). The first printing was sold out at the International Geological Congress (Oslo, August, 2008).
- Australian Geo-History on-line (and on CD) this is a version of the geological Time-Scale Creator that we developed with Geoscience Australia (the Australian geological survey) during 2008-09. In addition to the standard international suite, this version contains lithologic columns (about 500) of all Australian Phanerozoic basins, with each formation hot-linked into the GA Oracle database. Images of paleogeographic, facies and tectonic maps (about 200) are also hot-linked into online text of Australian history. The suite also includes reference wells for all major oil-gas reservoirs. This system is intended to be a model to put the geology of other continents "on-line", and we are coordinating the next phase with the UNESCO Commission for the Geologic Map of the World.
- *Human Time Scale Creator* this is a version of the geological Time-Scale Creator that has records of all major cultures, prehistoric tool "zones", ice core data and other environmental data. This is for an entirely different audience, and the first version will be released for audience testing in Spring 2008. This was developed by one of my undergrad research assistants.
- Chart "*International Divisions of Geologic Time*" is freely available through the International Commission of Stratigraphy website (*www.stratigraphy.org*). [During 2006, this was also in Chinese translation in a review journal in that country]. This chart is now included in Encyclopedia Britannica and other reference/textbooks.
- Chart "*Geologic Time Scale 2004*" (A3-sized). During late 2007, a new printing was sponsored by Idemitsu.
- Plastic card "*International Geologic Time Scale*". During 2007 through 2009, new versions were sponsored by Neftex, Chevron, ExxonMobil, ConocoPhilips, ENI and Aramco. The versions printed by ExxonMobil and Chevron are distributed to their employees and interviewed students.

Mousepad "*International Divisions of Geologic Time*". We produced a new version for the 2008 "International Year of Planet Earth"; which was printed/distributed through the UNESCO Commission for the Geologic Map of the World. We produced another version in summer 2009 with Geoscience Australia. Bookmark "*International Geologic Time Scale*" (2004)

2. Earth history visualization and datapacks [Extract of annual report to International Commission on Stratigraphy]

"TimeScale Creator" (Version 1 released in November, 2005; Version 2 in September, 2006; Version 3 in March, 2007; Version 4 in March, 2008; Version 4.2 released in Jan'10; Version 5.2 in Jan'11; Version 5.4 in Mar'12; Version 6.0 in Sept'12; along with an industrial "Time-Scale Creator Pro" for each release). This is our continuously-expanding "flagship" database-visualization system with hyperlinks to our stratigraphic-information website at Purdue (http://stratigraphy.science.purdue.edu). The major "versions" are a new software package, but database updates/enhancements are mounted approximately every three months.

Current suite of "*TimeScale Creator*": Version 5.4 of this free JAVA suite developed at Purdue University was released in March, 2012; and Version 6 with the GTS2012 age models was released in Sept, 2012. This is a continuously expanding database-visualization system with hyperlinks to our stratigraphic-information and other websites. The internal database contains approximately 30,000 biologic, magnetic and other major events in Earth's history (*status in Nov'11*), plus an extensive set of geochemical and sea-level curves. This and other datasets are collaborations among the SSI group, ICS chairs who are participating in the GTS2012 projects, Purdue University and many data providers. Database updates/enhancements are mounted approximately every three months. The user selects the interval of time, chooses the type of data to be displayed, and this windows into Earth's history appears on the screen, or can be downloaded as an SVG or PDF file for use in popular graphics programs. On-line "quick-start", tutorials, exercises and a manual (200-page PDF with full training examples and exercises *released in May'12*) provide independent training in usage and developing one's own datasets for insertion. Additional manuals explain how people can enter their own datasets, transects, geographic interfaces, cross-plots, etc.

Version 5.0 (May 2011) includes capabilities for lithologic columns, images of paleogeographic maps, range charts, URL-hotlinks, geographic interface (both vertical perspective and "rectangular"), basin transect capability with floating labels and pop-ups, depth-vs-time on-screen cross-plot capabilities followed by automated outcrop-to-time conversion routine (*which also converts geochem curves or other logs*), superimposed geochemistry curve system, enhanced "focus-in" capabilities, ability to display images within range-charts or within pop-up windows, auto-priority display option to avoid overcrowding and many other features. We worked with PaleoStrat and with the GeoBiodiversity database teams to install systems to display their outcrop information for on-line users.

In summer, 2011, our supported computer-science students prepared a web-based prototype to augment the current JAVA download version. They are working in spring 2012 to release this after running user-interface tests with selected volunteers.

In 2011, we presented workshops to educational and research audiences in Houston (microfossil conference hosted by Chevron), Norway (workshop on regional stratigraphy) and Venezuala (PDVSA presentation and one-day workshop) on how to utilize the educational exercises, create one's own datasets, and apply the datapacks for geoscience research. Posters and talks were presented at Geol. Soc. Amer. meeting (Oct, 2011), Shell Energy Day (Sept, 2011) and other venues.

Regional Lexicon-linked databases and Other datapacks (2009-11 and ongoing 2012)

NOTE: All regional visualization suites produced directly with geological surveys are freely available as datapacks through the SSI/TSC websites and as special pre-packaged TS-Creator versions through the websites of the individual geological surveys. All of the following projects were put on-line during 2009-2011 or are nearly completed for mounting for early 2012:

- Australian Geo-History this was greatly enhanced in 2009-10 with Geoscience Australia (the Australian geological survey). In addition to all types of Australian biostratigraphy with full references of calibrations, the datapack has a comprehensive array of lithologic columns (about 200) of all Australian Proterozoic and Phanerozoic basins and subbasins (and even finer detail in some regions), with each formation hot-linked into the GA Oracle database. Images of paleogeographic maps, tectonic maps and facies maps (about 50 of each) provide visual columns on Australian history, and are also hot-linked to additional on-line summaries. The suite also includes reference wells for all major oil-gas reservoirs (hot-linked to appropriate database). There are over 9000 events/datums/formations. This extensive system is intended to be a model to put the geology of other continents "on-line".
- New Zealand Geo-History In collaboration with the NZ Geological and Nuclear Sciences (their geological survey), an extensive (ca. 3000 entries) array now includes the main and all secondary biostratigraphic events and ranges for this region. Palynology events are linked to the NZ-hosted pollen-spore database. Lithostratigraphy and transects was added in 2010 for half of the New Zealand basins, and the entire region will be completed in 2011.
- **British Isles Lithostratigraphy**. An extensive (ca. 2000 entries) array includes the Phanerozoic of all British basins, and has been vetted by the British Geological Survey. All formations are tied to the Lexicon of BGS.
- **Belgium Lithostratigraphy**. This was a joint project with the Belgium stratigraphic commission (Dr. Van den Bergh, coordinator).
- **Russian Biostratigraphy**. An extensive (7000 entries) array includes most biostratigraphic zones and major bioevents for all regions of Russia through the entire Phanerozoic. The suite was provided by T. Koren' (All-Russian Geological Research Institute), and is based on her institutes book and extensive charts.
- **Russian Lithostratigraphy (NE Russia).** Dr. T. Koren' and her institute has provided an detailed compilation of Phanerozoic stratigraphy for NE Russia (ca. 80 columns for each system). The SSI has translated most of these charts, and the dataset will be mounted in early 2012. It is planned that this program with the All-Russian Geological Research Institute will eventually include syntheses for all of the Russian basins.
- **Russian Hydrocarbon Basins Lithostratigraphy**. This set was mainly compiled from Siberian, Caspian and other regional reports of the U.S. Geological Survey.
- NOTE: All three of these Russian datasets will be enhanced in 2011 in coordination with colleagues at the Academy of Science (with their funding provided by BP-Russia).
- **Canada Geo-History**. A collaboration with the Geological Survey of Canada (G. Nowlan, coordinator) has completed approximately 200 stratigraphic columns spanning the Phanerozoic of interior Canada and its Arctic islands, plus an extensive Arctic transect. This project was distributed in mid-2011 for vetting before mounting for public use.
- **China Geo-History**. An initial set of major biostratigraphic zonations (all major fossil groups) and of the lithostratigraphy for most major Chinese basins was completed during the summer of 2010 in collaboration with Nanjing's Institute for Stratigraphy and Paleontology. The GeoBiodiversity group in Nanjing is proceeding with a much more detailed version in late 2011.
- **Gulf of Mexico Geo-History** An extensive (ca. 2000 entries) suite integrates biostratigraphy/sequence stratigraphy charts of Shell (*provided by Mike Styzen*), of Dick Fillon (*formerly at Chevron*), of PaleoData, of the USA MMS, and lithostratigraphy columns from the Gulf of Mexico DNAG volume (*in turn, linked to the USGS Lexicon*).

Svalbard and Norwegian Sea Lithostratigraphy. All formations are tied to entries in Norlex.

- Alaskan and other Arctic Hydrocarbon Basin Lithostratigraphy. This includes conversions of many regional reports of the U.S. Geological Survey.
- Marine Genera ranges. This is based on the Sepkoski (2002) compilation, as revised and updated by Leif Tapanila. A user selects from 30,000 genera according to phylum and orders.
- **Austria Lithostratigraphy**. This is based on charts produced by the Austrian stratigraphic commission and includes the Phanerozoic of basins and mountain belts. The dataset will put on-line in conjunction with the publication of the extensive book *Geology of Austria* (W. Piller et al.) by the Austria Stratigraphic Commission. Simultaneously, they will complete the on-line Lexicon for inter-linking.
- **Germany Lithostratigraphy**. This includes the Phanerozoic of basins and mountain belts, and is based on charts produced by the German stratigraphic commission. The initial data entry was completed and awaits review from the BGR and German Commission on Stratigraphy. All formations are linked to the German stratigraphic on-line Lexicon.
- **India-Pakistan-Burma and Adjacent Regions Lithostratigraphy**. This datapack includes the Phanerozoic of all onshore and offshore basins and mountain belts of the Indian subcontinent, and is based on charts produced by Rao et al (2007). Details on formations (and links) are from publications and the Indian directorate for hydrocarbons.
- **Middle East Lithostratigraphy** This is based on charts produced by GeoArabia and includes the Phanerozoic of basins and mountain belts. ExxonMobil and Qatar Petroleum have offered to aid in enhancing this public database.

The *TimeScale Creator* visualization package, developed as a joint Purdue computerscience and geoscience program (free JAVA package and database suite at: *www.tscreator.org*; OR *https://engineering.purdue.edu/Stratigraphy/tscreator/*), has been progressively enhanced during the past three years. The supporting datasets include a global set (ca. 300 columns; ca. 25,000 events plus geochemical and climatic records of ca. 50,000 values), Phanerozoic evolution of major genera (ca. 30,000 genera), extensive regional biostratigraphy and lithostratigraphy suites developed in collaboration with different geological surveys (Australia, Canada, Russia, New Zealand, Norway, Britain, etc.) and other regional groups (Gulf of Mexico, Middle East, India, etc.).

A new "TS-Creator Lite" web-based system was developed by the Computer-Engineering undergraduate team in Fall, 2010; and will have a dedicated ECN server in 2011 to serve a global eduational audience. A geographic interface for regional datapacks was developed as part of this service.

These projects are mainly supported by donations from geological surveys and petroleum companies, partly via the Geologic TimeScale Foundation.

3. <u>Web sites (*public outreach*)</u>

- www.tscreator.org = Download site for the free TimeScale Creator JAVA system global database (about 25,000 datums; plus geochem curves) and regional datapacks (e.g., Australia, New Zealand, Arctic, Gulf of Mexico, India, etc.) -- with a flexible visualization system.
- http://stratigraphy.science.purdue.edu = Former website of the ICS Subcommission for Stratigraphic Information (J. Ogg, chair 2008-2012), and now hosted by the Geologic TimeScale Foundation. This is the central location for authoritative information on the divisions of geologic time, regional stages, time scales (via the TimeScale Creator), etc. [The main ICS website at www.stratigraphy.org, which formerly contained these

subcommission products, is now under other leadership with content that is more specific to ICS activities.]

http://www.eas.purdue.edu/paleomag/ = Paleomag software designed for both research and undergraduate-level instruction. A student-oriented tutorial and sample instructional-lab is included.

4. Direct involvement with K-12 Schools

November, 2009 – co-led 3-day field trip to Mammoth Cave region (full bus of high school students; with Dave Collins of West Lafayette High School)

Spring 2007, I was part of "Researching with Scientists" program of CSIRO (Australia). As part of this program, I supervised 3 high-school students on database projects related to our "*TimeScale Creator*" and "*Human TimeScale Creator*" systems and joint work with climate cycles.

Spring 2007 -- "*Climate Change and Egypt*" presentations to Lyneham High School and to Canberra Girls High School, Canberra, Australia

Other Public Outreach

- 2010 "Oil !!", Mini-course (total of 12 hours) series, Wabash Area Lifetime Learning Association (WALLA), Morton Center, West Lafayette (ca. 50 people attended) (Mar-Apr., 2010)
- 2013 "The Switch", Jim Ogg served as moderator and discussion at Lilly Nature Center for a showing of "SWITCH: Global Energy Understanding" for a local community audience (about 55 people). This new video co-sponsored by Geol. Soc. Amer. and Amer. Assoc. Petroleum Geologists will be shown at Purdue on 15th April hosted by the Purdue Energy Forum.

6. Media interviews:

- *"Time Lords"*, <u>Nature</u>, May 2004 (v. 429; pg. 123-124) An article in which I was interviewed about the International Commission on Stratigraphy and standardization of the geologic time scale. (I also helped write the text.)
- (2) "Geologic Time Gets a New Period", <u>BBC News</u>, 17 May 2004 A short news article about our establishment of the Ediacaran Period (latest Precambrian; beginning at the end of Snowball Earth conditions). There was also a brief news item in the global broadcast edition.
- (3) <u>Discover</u> magazine, March 2007, on *Earth History* for their potential special issue accompanying "International Year of Planet Earth".
- (4) Science magazine, "A Time War Over The Period We Live In" (26 Jan, 2008; v. 319: 402-403) interview with Richard Kerr on defining the Quaternary.
- (5) Phone interviews with <u>Ottawa Citizen</u> and the <u>Current Science</u> (both in Feb, 2008) about the Anthropocene (a proposed stage of the Holocene to encompass the past 200 years). The <u>Ottawa Citizen</u> article was picked up in several Canadian newspapers.
- (6) <u>Science News</u> magazine, "Paleozoic Sealevels" (Oct, 2008)

IV. CREATIVE ENDEAVOR, RESEARCH AND SCHOLARSHIP

A. Current Research Program – selected aspects

Main Goal – Establishing a high-resolution time scale and database framework for understanding processes and linkages within the Earth system (climate, oceans, atmosphere, life, tectonics) throughout time.

A. Earth History databases and compilations (*TimeScale Creator, Concise Geological Time Scale 2008, Geologic TimeScale 2012 suite*); and International Commission on Stratigraphy

The *Concise Geological Time Scale 2008* was the main product of my 2006-07 academic sabbatical and research leave. This is a comprehensive review of all geological time divisions and the associated absolute (millions of years) time scale. As with the 2004 version, this program involves a large global network of geoscientists contributing their expertise. But, in contrast, this concise book is mainly authored by myself, with Gabi Ogg doing all the graphics.

In my role as *Secretary General* of the International Commission on Stratigraphy (through 2008), I coordinated activities of 16 subcommissions (with over 500 members, and an annual budget of about \$50,000). These groups are responsible for deciding the global definitions of all geological stage divisions, for coordinating databases and standards for all types of stratigraphic methods, and for compiling a common international geological time scale and "code" for stratigraphy. Our ICS web site with a wealth of information is *http://stratigraphy.science.purdue.edu*; which is mainly compiled by myself and Gabi Ogg. This website has achieved success by providing authoritative free charts and continual "state-of-the-science" updates.

Our major *TimeScale Creator* database and visualization system is explained under "Outreach" on the first pages of this report (see above). In 2007-09, we had an exciting collaboration with Geoscience Australia to digitize a summary of all of Australia's basin geology, including on-line linkages to their Oracle database for additional in-depth material. This will be a prototype for our efforts in the coming years to place all Earth history onto a convenient framework that is accessible to both the general public and to specialty researchers. In 2009, we began official programs with the New Zealand and the Canadian geological surveys for produce similar products; and are working with the Russians (Geol. Inst., St. Petersburg) and Chinese on other prototypes. At this point, everyone is delighted to contribute, and we give adequate credit (or blame) to all those who provide the data and correlations.

Funding for these programs has been from NSF, IUGS and a consortium of petroleum companies and geological surveys.

B. Climate Cycles of the Mesozoic

Paleoclimate research has led to the realization that quasi-periodic oscillations in the Earth's orbit and axial tilt have been a major driving factor in past climate variations. In addition to their role in governing the Quaternary glacial episodes, these astronomical-forced oscillations have left their record in variations of surface climate and weathering, ocean circulation and productivity, and other features captured in the sedimentary record. Resolving this sedimentary 'metronome' from outcrops and cores has enabled a revolution in Earth system science. Global marine sequences, ocean anoxic events, and even biotic extinctions are connected with long-period astronomical modulations. Precise prediction of the superimposed fine-scale oscillations into the distant past is the basis for high-resolution calibration of the Cenozoic timescale, and is rapidly becoming the foundation for Mesozoic-Paleozoic scaling.

This NSF-sponsored project to decipher past climate cycles from the geologic record and to use these to construct a ultra-high resolution time scale involves myself (for stratigraphy), Linda Hinnov (Johns Hopkins, for numerical analysis methods) and a team at Arizona State University (for on-line tool boxes that can be used by all geoscientists).

Extract from NSF-project report (July 2012):

The goal of this project is to assemble astronomically forced stratigraphy into a continuous 'Astronomical Time Scale' (ATS) for the Mesozoic Era. Methods include statistical time series analysis of stratigraphic signals and goodness of fit tests to astronomical models, duplication of data from multiple global sites, high-resolution correlation to integrated bio-magneto-chemo-stratigraphy, and inter-calibration with high-precision geochronology. This was a group project with several other international colleagues. The Late Cretaceous C-Sequence of marine magnetic anomalies was cycle-tuned from ODP cores, and tied to the base-Cretaceous radio-isotopic dates. In collaboration with other colleagues, we derived a cycle-tuned spreading rate model for the Pacific M-Sequence and its pre-Kimmeridgian extension through Bajocian, thereby an age-model for Early Cretaceous through late Middle Jurassic ammonite and microfossil zones. Intervals of the Triassic and Early Jurassic were also cycle-scaled. The only remaining non-cycle-scaled "gaps" are a portion of the mid-Early Jurassic and the entire Middle Triassic.

Publications supported by this project

The main publication of the combined results is the Mesozoic time scales in the 2-volume *The Geologic Time Scale 2012* (Gradstein, Ogg, Schmitz, Ogg, with ca. 60 contributors, scheduled publication in May 2012; 2- volumes, ca. 1000 pages, Elsevier, \$100 full-color).

In addition to co-coordinating the two-volume set, Jim Ogg is lead authors of 4 chapters (Geomagnetic polarity time scale by J.Ogg; The Triassic Period by J.Ogg; the Jurassic Period by J.Ogg and L.Hinnov, and The Cretaceous Period by J.Ogg and L.Hinnov).

Other selected publications (2010-2011) include:

- Boulila, S., Galbrun, B., Hinnov, L.A., Collin, P.-Y., Ogg, J.G., Fortwengler, D., Marchand, D., 2010.
 Milankovitch and sub-Milankovitch forcing of the Oxfordian (Late Jurassic) Terres Noires Formation (SE France) and global implications. *Basin Research*, 22: 712-732. DOI: 10.1111/j.1365-2117.2009.00429.x
- Przybylski, P.A., Głowniak, E., Ogg, J.G., Ziółkowski, P., Sidorczuk, M., Gutowski, J., Lewandowski, M., 2010. Oxfordian magnetostratigraphy of Poland and its Sub-Mediterranean correlations. Earth and Planetary Science Letters, 289: 417-432. doi:10.1016/j.epsl.2009.11.030
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Educational and Human Resources:

During the course of this data-intensive project at Purdue, a total of 15 undergraduate and 2 graduate students worked as research undergraduate assistants or as summer research projects with partial support from this NSF grant. One of them (Piotr Przbylski) used his analysis of the cycle-tuned Oxfordian scale for his PhD thesis, and is now employed at BP Houston.

B. PUBLICATIONS

James Ogg has published over 100 articles and coordinated 2 books as first or co-author on aspects of stratigraphy in refereed journals since 1986, and has contributed to over 70 chapters in Deep Sea Drilling Project and Ocean Drilling Program volumes.

Citations (Feb 2010, statistics): h-index = 21 (March, 2009; didn't get it for Mar 2010)

Lifetime (*unique articles citing <u>one or more</u> of mine*) = **2139** different articles (NOTE – many cite more than one of my papers, but these were counted as a single "citing article" for convenience). Total unique articles per year (*citing <u>one or more</u> of mine*) -- *I could not yet find out to easily extract totals for all individual citations*.

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2010 (Jan-Feb) = 56

2009 = 195 (partial; Web-of-Science oddly kept crashing without showing results for 10 more of my articles)

2008 = 202

2007 = 180

2006 = 155

2005 = 122

2004 = 85

2003 = 94

2002 = 87

2001 = 86

2000 = 81

1999 = 103

1998 = 100

1997 = 79

1996 = 65
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Average citations per article = 34 (h-index = 21)

Average over past four years = over 170 per year [most are from my geological time scale papers].

NOTE: Books, including our including our major Geologic Time Scale 2004 book, and articles published in special volumes by AGU, GSA, SEPM or Ocean Drilling Program, are not included in the citation index. These books and special volumes incorporated a significant number of my publications during the past years.

1. Refereed Articles and Books

1978

Ogg, J.G., and J.A. Koslow (1978) The impact of Typhoon Pamela (1976) on Guam's coral reefs and beaches. <u>Pacific Science</u>, 32: 105-118.

1982

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Leg 93 Scientific Party (1983) The continental rise off North America. <u>Nature</u>, 305: 386. 1984

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(This article was also reprinted in <u>SIO Contributions</u>, 1985)

Leg 93 Scientific Party (1984) DSDP drills margin and studies paleoclimate. <u>Geotimes</u>, Apr. 1984: 16-18.

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- Boillot, G., et al. (1985) Resultats preliminaires de la campagne 103 du Joides Resolution (Ocean Drilling Program) au large de la Galice (Espagne): sedimentation et distension pendant le "rifting" d'une marge stable; hypothese d'une denudation tectonique du manteau superieur. <u>Comptes Rendu Acad. Sciences Paris</u>, 301, Ser. II no.9: 627-632.

¹. The journal, *Initial Reports of the Deep Sea Drilling Project*, and its successor, *Scientific Results, Ocean Drilling Program*, are referred journals with 2 or 3 anonymous reviewers, plus an extensive "in house" review for all articles. Rejection rate for manuscripts is approximately 20%, according to the stated policy of the Ocean Drilling Program chief editor. The "Initial" is a carry-over from the original publication purpose during the l960's and no longer is valid. Indeed, official regulations prohibit participants on these international drilling programs from submitting their research publications to any other outside journal unless *Scientific Results, Ocean Drilling Program*, has rejected such papers.

- Ogg, J.G. (1986) Paleolatitudes and magnetostratigraphy of Cretaceous and lower Tertiary sediments, DSDP Site 585, Mariana Basin, western Central Pacific. <u>Initial</u> <u>Reports Deep Sea Drilling Project</u>, 89: 629-645.
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and Cretaceous, North American Micropaleontology Section, SEPM, International Conference, Houston, TX, 14-19 March.

- James Ogg, A. Lugowski, F. Gradstein, 20 Oct 2009. Earth history visualization the TimeScale Creator system and datapacks. GSA Annual Meeting, Portland, Oregon. Geological Society of America Abstracts with Programs, Vol. 41, No. 7, p. 423.
- Linda Hinnov, James Ogg (presenter), C. Huang, B. Galbrun, E. Huret, S. Boulila, D. Husson and R. Lockair, 20 Oct 2009., Current status of the Mesozoic astronomical time scale. GSA Annual Meeting, Portland, Oregon. Geological Society of America Abstracts with Programs, Vol. 41, No. 7, p. 420.
- Linda Hinnov and James Ogg (invited talk), 16 Dec 2009. Mesozoic cyclostratigraphy, the 405-kyr orbital eccentricity metronome, and the Astronomical Time Scale. AGU Annual Meeting, Eos Trans. AGU, 90(52), Fall Meet. Suppl., Abstract GP22A-02.
- Gradstein, F.M., Hilgen, F., Ogg, J., Hinnov, L., "Recent developments in the Geologic Time Scale, with special reference to the Cenozoic and Cretaceous", North American Micropaleontology Section, SEPM Meeting: Geologic Problem Solving with Microfossils II, (2009). Abstract Published
- Husson, D., Hinnov, L.A., Locklair, R., Galbrun, B., Huang, C., Huret, E., Ogg, J.,
 "Development of an Astronomical Time Scale for the Cretaceous Period", AAPG Annual Convention, (2009). Abstract Published
- Hinnov, L.A., Ogg, J, "Astrochronology of the Cenozoic Era: a critical review", AAPG Annual Convention, Denver, CO, 7-10 June, 2009. Abstract Published
- Huang, C., Hinnov, L.A., Huret, E., Boulila, S., Ogg, J., "Integrated astronomical calibration of the Jurassic time scale", AAPG Annual Convention, Denver, CO, 7-10 June, 2009. Abstract Published.
- Hinnov, L.A. and Ogg, J. (2009), INVITED: Mesozoic cyclostratigraphy, the 405-kyr orbital eccentricity metronome, and the Astronomical Time Scale, AGU Annual Meeting, San Francisco, CA, 14-18 Dec 2009. Abstract Published

- James Ogg, 29 Jan 2010. The lithostratigraphic and petroleum database initiatives of the Geologic Surveys in Australia, New Zealand, UK and Canada, using Time Scale Creator Pro. The Norlex (Norwegian Interactive Offshore Stratigraphic Lexicon) Initiative and Project, Natural History Museum, Olso, Norway.
- James Ogg and Linda Hinnov, 29 Jan 2010. Orbital Tuning the Cretaceous and Paleogene. The Norlex (Norwegian Interactive Offshore Stratigraphic Lexicon) Initiative and Project, Natural History Museum, Olso, Norway
- Herrera, J., and Ogg, J. (2010). Oxfordian Sea-Level Oscillations: 400-kyr periodicity of sequences in British (Subboreal) and French (Sub-Mediterranean) reference sections. Eighth International Congress on the Jurassic System (Suining, Sichuan, China; 9-13 July 2010).
- Ogg, J.G., Hinnov, L.A., Huang, C., and Przyblylski, P.A., 2010. Late Jurassic time scale: integration of ammonite zones, magnetostratigraphy, astronomical tuning and sequence interpretation for Tethyan, Sub-boreal and Boreal realms. *Earth Science Frontiers*, 17: 81-82. (Special issue for 8th International Congress on the Jurassic System)
- Huang, C., Hinnov, L.A., Ogg, J., Galbrun, B., Boulila, S., Huret, E. (2010), Astronomical calibration of the Jurassic Time Scale (8th International Congress on the Jurassic System, Sichuan, China, 9-13 August 2010)

Ogg, J.G., Hinnov, L.A., Przyblylski, P.A., Huang, C., and Boulila, S. (2010), Late Jurassic time scale: integration of ammonite zones, magnetostratigraphy, astronomical tuning and sequence interpretation for Tethyan, Sub-boreal and Boreal realms, Geological Society of America, Annual Meeting, Denver, CO, 31 Oct – 3 Nov., 2010.

2012

- Ogg, J.G., "*Geologic Time Scale 2012*", 34th International Geological Congress, session "Stratigraphic GSSPs". Abstract Published.
- Ogg, J.G., "Earth history visualization system", 34th International Geological Congress, Abstract Published.
- USING BIOSTRATIGRAPHY TO INTERPRET SEA-LEVEL VARIATIONS A STUDENT EXERCISE (KAINKARYAM, Sribharath M., OGG, James G., CHUNDURU, Nag Varun, WATERMAN, Art, and SNEDDEN, John); Geological Society of America annual meeting, Charlotte, NC, 4-7 Nov 2012
- EARTH HISTORY VISUALIZATION SYSTEM (OGG, James G., GRADSTEIN, Felix M., AULT, Aaron, CHUNDURU, Nag Varun, BALMOS, Andrew, and BOBICK, Rebecca); Geological Society of America annual meeting, Charlotte, NC, 4-7 Nov 2012
- THE EVOLVING PLANETARY TIME SCALE (TANAKA, Kenneth L., HARTMANN, William K., COLLINS, Geoffrey C., and OGG, James G.); Geological Society of America annual meeting, Charlotte, NC, 4-7 Nov 2012
- MESOZOIC TIME SCALE: INTEGRATION AND IMPLICATIONS OF RADIO-ISOTOPIC DATING, CYCLE STRATIGRAPHY, MAGNETO-BIOSTRATIGRAPHY, ISOTOPIC EXCURSIONS AND OTHER EVENTS (HINNOV, Linda A., OGG, James G., and HUANG, Chunju); Geological Society of America annual meeting, Charlotte, NC, 4-7 Nov 2012
- PALEOGENE-NEOGENE TIME SCALE (VANDENBERGHE, Noël, HILGEN, Frits, LOURENS, Lucas J.1, SPEIJER, Robert P., VAN DAM, Jan A., OGG, James G., and GRADSTEIN, Felix M.); Geological Society of America annual meeting, Charlotte, NC, 4-7 Nov 2012
- Callovian (upper Middle Jurassic) magnetostratigraphy and its correlation to Pacific marine magnetic anomalies, GIPE, Rachel, OGG, James, and COE, Angela; American Geophysical Union, San Francisco – 3-7 Dec 2012

2013

Rachel Gipe [=my grad student], James Ogg and Angela Coe, "*Magnetostratigraphy of the Callovian (upper Middle Jurassic) and calibration of the Pacific M-sequence of magnetic anomalies*" -- 125th Annual Meeting of Geological Society of America; 27-30 Oct 2013.

C. INVITED LECTURES

1. Professional - INVITED (since 1989)

- 1989 "Jurassic Magnetic Polarity Time Scale", Kochi University, Japan
- 1992 "Jurassic through Early Cretaceous sedimentation history of the tropical Pacific", Kiel, Germany
- 1993 "Mesozoic Time Scale", AAPG annual meeting, New Orleans
- 1995 "*Mid-Cretaceous Sea Levels*", (with Ursula Röhl), Carbonate Depositional Environments, Bisbane, Australia.

- 1996 "Cretaceous Time Scale", Amoco Petroleum (Houston)
- Aug, 1996 -- 29th International Geological Congress, Beijing, China, Invited speaker and short-course "Quantitative Stratigraphy" (however, in June, I had to decline due to overload of other commitments, and lack of travel support)
- 1997 "Milankovitch Cycles and Stratigraphy", Oslo (Norway)
- 1997 **Keynote**: European Geoscience '98 convention (April, 1998, Birmingham, England): *"Ingredients, Cooking and Serving of the Mesozoic-Cenozoic Time Scale"*
- 2000 International Geological Congress -- **Keynote** presentations, (Rio de Janeiro, August 2000):
 - U. Röhl, J.G. Ogg and G. Wefer (2000) "Astronomical tuning of the Paleocene time scale"
 - Ogg, J.G., and F. Gradstein (2000) "Perspectives on the Geological Time Scale for the 21st Century"
 - plus, Convener of the symposium "Stratigraphy in the 21st Century"
- Ogg, J., 2003. "The CHRONOS Network for Earth History Databases", Paléoceanographie du Mésozoïque (Mesozoic Paleoceanography), Réunion specialize de la Société géologique de France, Paris 10-11 July 2003.
- 2004 Ogg, J., 2004. *Mesozoic Time Scale 2004*. International Geological Congress, Florence, Italy, August 2004.
 - Ogg, J., 2004. Boundary Stratotypes: Preserving the foundations of the International Geologic Time Scale. International Geological Congress, Florence, Italy, August 2004.
 - Ogg, J., 2004. *Status of the Quaternary*. International Geological Congress, Florence, Italy, August 2004.
 - Ogg, J., 2004. "Demerara Rise paleolatitudes and the history of the Gulf of Mexico". Ocean Drilling Program Leg 207 conference, Caens, France, Sept 2004.
- 2005 Keynote: Ogg, J., 2005. Geologic Time Scale 2004, -- SEPM International Conference on Geologic Problem Solving with Microfossils, Houston, Texas, 6-11 March 2005. This was followed by an open roundtable led by Jim Ogg and Felix Gradstein.
 - Ogg, J.G. "*Geologic Time Scale 2004*", International Symposium on Triassic Chronostratigraphy and Biotic Recovery, Chaohu, CHINA, 23-25 May 2005. "*International Geologic Time Scale*", Nanjing University, China, May 2005.
 - "Geologic Time Scale", GeoForschungsZentrum Potsdam, July 2005.
 - "*Cretaceous Time Scale*", International Cretaceous Symposium, Neuchatel, SWITZERLAND, September 2005.
- 2006 Ogg, J.G. "Mesozoic-Cenozoic Chronostratigraphic Charts", AAPG, Houston, TX, April 2006.
 - Ogg, J.G., and Lugowski, A., "TimeScale Creator", AAPG, Houston, TX, April 2006.
 - Ogg, J.G. "Status of Geologic Time Scale and the Time-Scale Creator Visualization System". German Stratigraphic Commission, Frankfurt, Germany, 15 Nov 2006.
 - **Keynote**: Ogg, J., *"Mesozoic chronostratigraphy*" GSA Penrose, Chronostratigraphy: Beyond the Global Standard Stratotype and Point. Schoss Seggau, Austria, 3-9 June 2006.
 - **Opening Keynote**: Gradstein, F.M., and Ogg, J.G.. "*Geologic Time Scale 2004 Why, How, and Where Next!*" 7th International Congress on the Jurassic System, Krakow, Poland, 6-18 Sept 2006.
 - plus, Convener of the symposium "Cyclostratigraphy and Magnetostratigraphy"

- Ogg, J.G., and Hinnov, L.A. "Astronomical Scaling of Stages within the Cretaceous and Triassic". XIth International Congress for Mathematical Geology, Liege, Belgium, 3-8 Sept 2006.
 - plus, Organizer and Convener of the symposium "Recent developments in the geologic time scale using orbital tuning"
- Röhl, U., and Ogg, J.G. "Astronomical-scaling of the Early Paleogene: Integrative Stratigraphy for the Paleocene-Eocene". XIth International Congress for Mathematical Geology, Liege, Belgium, 3-8 Sept 2006.
- 2007 **Geological Society of Australia** (invited presentation; Canberra, Apr., 2007), *Russian Black Gold: Russian petro-geology and petro-politics*. [NOTE: Received award for *Best GSA Presentation*, 2007]
 - International Congress on Permian and Carboniferous (Nanjing, China; June, 2007) *Opening Address* (in my role as ICS Secretary General).
 - International Congress on Ordovician and Silurian (Nanjing, China; July, 2007) *Closing Address* (in my role as ICS Secretary General).
 - International Quaternary Research Association Congress (invited presentation; Cairns, Australia; Aug, 2007) – Formalizing the Quaternary The Perspective of the International Commission on Stratigraphy (ICS) (in my role as ICS Secretary General).
 - Novazem (invited presentation conference on Barents Sea hydrocarbon exploration; Oslo, Norway; Oct, 2007) – *TimeScale Creator Pro*.
 - Geoscience Australia (invited seminar, Canberra; Dec., 2007) "Integrated Time Scales for Phanerozoic: Databases & Tools, and applications within Geoscience Australia".
 - American Geophysical Union (**Invited Keynote**; San Francisco; Oct, 2007) *Story in the Sediments: Jurassic-Cretaceous Paleoceanography.*
- 2008 Hinnov, L.A., Ogg, J., Applications of the sedimentary record of astronomically-driven paleoclimate oscillations and trends, AAPG Annual Convention, San Antonio, TX, 20-23 April. (SEPM Excellence in Oral Presentation Award).
- *International Geological Congress*, Oslo, Norway, August 2008. [Gradstein, F.M., and Ogg, J.G. were joint-conveners of a session on the geologic time scale.]
 - **Opening Keynote**: Ogg, J.G., *The International Geologic Time Scale Status of boundary definitions*.
 - Gradstein, F.M., and Ogg, J.G., Recent developments in the geologic time scale.
 - Hinnov, L., and Ogg, J.G., An astronomical time scale for the Mesozoic Era.
 - Menning, M., and Ogg, J.G., A Middle and Late Permian time scale calibrated by cycles and radio-isotopic age determinations.
 - Hinnov, L., and Ogg, J.G., Solving Earth history problems with the Astronomical Time Scale.
 - Hinnov, L., Lockair, R., and Ogg, J.G., *The Cretaceous astronomical time scale*.
 - Hinnov, L., and Ogg, J.G., Construction of the Cretaceous astronomical time Scale. Part 1: Early Cretaceous.
 - Lockair, R., Hinnov, L., and Ogg, J.G., *Construction of the Cretaceous astronomical time Scale. Part 2: Late Cretaceous.*
- *Geological Society of America* annual meeting, Houston, October 2008. [Hinnov, L., and Ogg, J.G. were joint-conveners of a session on cycle stratigraphy.]
 - Lockair, R., Hinnov, L., and Ogg, J.G., The Cretaceous Astronomical Time Scale.

Boulila, S., Ogg, J.G. (presenter), Galbrun, B., and Hinnov, L., *Pacific Spreading Rates during Middle Jurassic through Early Cretaceous: Astronomical Cycle-Derived Durations of M-Sequence Polarity Chrons.*

Hinnov, L., Lockair, R., Ogg, J.G., and Huret, E., *Absolute Age of the Cretaceous-Paleogene Boundary at the Precessional Scale.*

2009

- Linda Hinnov and James Ogg (invited talk), 16 Dec 2009. *Mesozoic cyclostratigraphy, the 405-kyr orbital eccentricity metronome, and the Astronomical Time Scale.* AGU Annual Meeting.
- Invited Shortcourse: *The TS-Creator* © *stratigraphic database and visualization package*. James G. Ogg, Felix M. Gradstein, and Adam Lugowski. North American Micropaleontology Section, SEPM Meeting: Geologic Problem Solving with Microfossils II, (March, 2009)..

2010

- Invited Shortcourse: *The TS-Creator* © *stratigraphic database and visualization package*. James G. Ogg, Felix M. Gradstein, and Adam Lugowski. 28 January 2010. Natural History Museum, Olso, Norway.
- Invited Shortcourse: *The TS-Creator* © *stratigraphic database and visualization package*. James G. Ogg. 28 July 2010. Nanjing Institute of Paleontology and Geology, Nanjing, China.

2012

- Invited Shortcourse: *The TS-Creator stratigraphic database and visualization package*. James G. Ogg. May 2012. Lundin Petroleum, Oslo, Norway.
- Invited Shortcourse: *The TS-Creator stratigraphic database and visualization package*. James G. Ogg. May 2012. Statoil Petroleum, Stavanger, Norway.
- Ogg, J.G. (invited talk). *Geologic Timescale 2012*. New Zealand GNS, Lower Hutt, New Zealand, 20 July 2012.
- Ogg, J.G. (invited talk). *Geologic Timescale 2012*. Geoscience Australia (Australia geological survey); Canberra, Australia, 2 August 2012.
- Invited Shortcourse: *The TS-Creator stratigraphic database and visualization package*. James G. Ogg. Oct 2012. Maersk Petroleum, Copenhagen, Denmark.

Geological Society of America annual meeting, Charlotte NC, November 2012. [Ogg, J.G., Hinnov, L.A., and Schmitz, M. were joint-conveners of two sessions with total of 30 papers on integrated Earth history.]

2013

Invited Workshop: *TimeScale Creator and the 2012 Time Scale*. James G. Ogg and Gabi Ogg. 46th Annual Palynology Meeting (N.Amer. Micropaleontology Society; Canadian Association of Palynologists; American Assoc. Stratigraphic Palynology; San Francisco, 20-24 Oct 2013)

2. Professional - Submitted Presentations at meetings (past twenty years)

- 1993 Gradstein F M; Hardenbol Jan; Agterberg F P; Ogg J G; Huang Z., 1993. *A Mesozoic time scale*. Seventh meeting of the European Union of Geosciences, 1993.
- 1994 "Oxfordian Magnetic Polarity Time Scale", 4th International Jurassic Congress, Mendoza, Argentina
- 1994 "Early Triassic Magnetic Polarity Time Scale", (with Stefania Graziano), American Geophysical Union Annual Meeting, San Francisco

- 1995 "*Aptian-Albian Sea-Level History*", (with Ursula Röhl), German Ocean Drilling Program, Münich
- 1997 "Oxfordian Magnetic Time Scale", (with Angela Coe), American Geophysical Union annual meeting, San Francisco
- 1998 "Oxfordian Magnetic Time Scale", (with Angela Coe) 5th International Jurassic Congress

"Magnetostratigraphy of the Blake-Nose transect", (with Leon Bardot), Ocean Drilling Program conference, Granada, Spain (Feb, 1999)

- "Paleolatitude history of the Florida Margin", (with Leon Bardot), Ocean Drilling Program conference, Granada, Spain (Feb, 1999)
- 1999 "Astronomical tuning of the Danian time scale", (with Ursula Röhl and Tricia Geib), Geological Society of America annual meeting, Denver
 - "Astronomical tuning of Aptian-Albian boundary interval: Oceanic Anoxic Event 1b through Lower Albian magnetic polarity Subchron M"-2r", (with Ursula Röhl and Tricia Geib), American Geophysical Union annual meeting, San Francisco
- 2000 Gradstein Felix M; Ogg James G. (2000). *Reflections on the geological time scale*. Second Romanian symposium on Palaeontology, 2000.
- 2001 C. Zhang and J.G. Ogg,, "Paleomagnetic Software for Research and Undergraduate Education", Geological Society of America (Boston, Nov 2001).
- 2003 Cervato Cinzia; Huber B; Keane C; Leckie M; Marshall C R; Ogg J; Sikora P; Wardlaw B. 2004. CHRONOS network for Earth system history; development of integrated databases and toolkits accessible through a common portal. Geological Society of America, 2003 annual meeting, 2003.
- 2004 Ogg, J., Gradstein, F.M., and Smith, A.G., 2004. Geologic Time Scale 2004. Geological Society of America (Rocky Mountain and Cordilleran 100th annual meeting), Boise, Idaha, May 2004.
 - Ogg, J., 2004. *Cenozoic-Mesozoic Time Scale 2004*. Geological Society of America Annual Meeting, Denver, Colorado, November 2004.
 - Smith, A., and Ogg, J., 2004. *Paleozoic-Precambrian Time Scale 2004*. Geological Society of America Annual Meeting, Denver, Colorado, November 2004.
 - Cervato Cinzia; Bowring Samuel A; Fils Doug; Hinnov Linda; Huber Brian; Leckie Mark; Marshall Charles; Ogg James G; Sadler Peter; Wardlaw Bruce R. 2004. *CHRONOS network for Earth system history; integrated databases and toolkits accessible through a common portal; www.chronos.org.* Geological Society of America, Rocky Mountain Section, 56th annual meeting; Geological Society of America, Cordilleran Section, 100th annual meeting, 2004.
- 2005 Gradstein Felix M; Ogg James G. (2005). *A geologic time scale 2004; why, how, and where next!*. North American Paleontology Convention, Dinosaurs to Dinoflagellates, 2005.
 - Ogg, J., 2005. *Geologic Time Scale*. The International Symposium on Triassic Chronostratigraphy and Biotic Recovery, Chaohu City, Anhui Province, The People's Republic of China, 23-25 May 2005.
 - Ogg, J., 2005. *Cretaceous chronostratigraphic charts and a display interface*. 7th International Symposium on the Cretaceous, Neuchatel, Switzerland, 5-9 Sept 2005.
 - Ogg, J., 2005. *Revised SEPM Mesozoic-Cenozoic Sequence Chronostratigraphy Charts*. Geological Society of America annual meeting, Salt Lake City, October 2005. [This included demonstrations of TimeScale Creator visualization software.]

- 2006 Ogg, J., and Van Couvering, J. "*Time Scale on the Internet: Transparent Consensus and Interactive Upgrades*". GSA Penrose, Chronostratigraphy: Beyond the Global Standard Stratotype and Point. Schoss Seggau, Austria, 3-9 June 2006.
 - Ogg, J.G., and Przybylski, P. "Jurassic chronostratigraphic charts and a display interface: 1. Hettangian through Aalenian". 7th International Congress on the Jurassic System, Krakow, Poland, 6-18 Sept 2006.
 - Przybylski, P., and Ogg, J.G. "Jurassic chronostratigraphic charts and a display interface: 2. Bajocian through Tithonian". 7th International Congress on the Jurassic System, Krakow, Poland, 6-18 Sept 2006.
 - Ogg, J.G., "Status and Recommended Definition for Quaternary", and "TimeScale Creator" at International Commission on Stratigraphy, Leuven, Belgium, September 2006.
- 2007 International Congress on Permian and Carboniferous (Nanjing, China; June, 2007) Poster – *Carboniferous Time Scale*
 - International Congress on Permian and Carboniferous (Nanjing, China; June, 2007) Poster – *Permian Time Scale*
 - International Congress on Permian and Carboniferous (Nanjing, China; June, 2007) Poster (2nd author) A Middle and Late Permian time scale
 - Geological Society of America (Denver; Oct, 2007) *TimeScale Creator Visualization System of Earth History*.
 - American Geophysical Union (San Francisco; Oct, 2007) -- Przybylski, P., and Ogg, J.G. "Calibration of Pre-M25 Marine Magnetic Anomalies: Magnetic Polarity Composite of Late Callovian Through Kimmeridgian".
- 2008 [I stopped this heading, because it is partly redundant with above]

3. Popular and Educational ("invited") (past ten years)

- 1989 "Mesozoic Paleoceanography", Purdue University
- 1990 "Evolution of the Nepal Himalayas", Purdue University
- 1991 "Milankovitch Cycles and the Ocean", Purdue University
- 1994 "The Ancient Pacific Ocean", University of Cincinnati
- 1994 "Jurassic Paleoceanography", University of Texas at Dallas
- 1995 "*Massive Disruption of the Global Carbon Cycle during Geological Time*", New York University
- 1996 "Cretaceous Paleoceanography", ETH (Zurich, Switzerland)
- 1997 "The Day the Dinosaurs Died", Purdue University (Discovery lecture) Same lecture: University of Cincinnati Same lecture: University of Maine Same lecture: IUPUI (Indianapolis)
- "It's Got Rhythm", Inst. Geol. & Geophys., New Zealand
 "The Day the Dinosaurs Died", Inst. Geol. & Geophys., New Zealand
 "The Day the Dinosaurs Died", New Zealand Astronomical Society (Wellington)
 "The Day the Dinosaurs Died", Dept. Geophysics, University of Munich
- 2002 "Ocean Drilling and Dinosaur Extinction", Cumberland School (grade school class), Lafayette, IN (Jan, 2002)
 - "Superplumes and Ocean Drilling", Dept. Geoscience, Eastern Illinois University, Charleston, IL (March, 2002)

- 2003 "Ocean Drilling and Dinosaur Extinction", Happy Hollow School, West Lafayette, IN (total of three 5th grade classes; 80 students) (Oct., 2003)
 - "Super-Greenhouse from a Super-Plume: Ancient Climate Evidence from the Deep Sea", part of "Our Changing Climate" series, Wabash Area Lifetime Learning Association (WALLA), Morton Center, West Lafayette (65 people attended) (Apr., 2003)
- 2004 "Progress and Challenges with the Mesozoic Time Scale". NORGES project (consortium of petroleum companies), Oslo, Norway, Sept 2004.
 - "International Geologic Time Scale", ExxonMobil Corporation, Houston, Texas, 15 March 2004.
- 2005 *"Interactive Bio-Chrono-Sequence Stratigraphic Charts"*. NORLEX workshop on Some Recent Developments in Stratigraphy, Oslo, Norway, 30 Sept 2005.
 - "Geologic Time Scale 2004", University of Florida, Gainesville, Florida, 13 January 2005.
 - "Geologic Time Scale 2004", Florida State University, Tallahassee, Florida, 14 January 2005.
 - *"From Russia with Love"* (Note: it is actually about Russian petro-politics). Invited presentation -- NORLEX, Recent Developments in Stratigraphy with reference to offshore Norway, Oslo, NORWAY, October 2005.
- 2006 "TSCreator -- A New Tool in Stratigraphy and Time Scale Applications". Geo Workshop, The Novaya Zemlya Project (sponsored by Oslo Museum of Natural History), 17-18 Feb 2006.
 - *"From Russia with Love"* (Note: it is actually about Russian petro-politics). Invited presentation Norwegian Geological Society, Feb 2006.
- 2007 Australian National University (invited seminar; Canberra, Apr., 2007), International Geologic Time Scale.
 - Geoscience Australia (invited seminar; Canberra, May, 2007), , From Russia with Love (of Money and Power) [Russian petro-geology and petro-politics]
- 2008 Arizona State University (invited seminar; Tucson, Arizona; Feb, 2008) Russian Black Gold (Petro-geology and Petro-politics)
 - **ExxonMobil** (invited presentation; Houston; Feb, 2008) *TimeScale Creator Pro Visualization System* (and a workshop)
 - **ExxonMobil** (invited presentation; Houston; Feb, 2008) *Paleozoic time scale and sequence stratigraphy*
 - **Chevron** (invited presentation; Houston; Feb, 2008) *TimeScale Creator Pro Visualization System* (and a workshop)
 - **BP** (invited presentation; Houston; Feb, 2008) *TimeScale Creator Pro Visualization System* (and a workshop)
 - Purdue University (Discovery Lecture, EAS): "Super-Greenhouses and Middle East Oil" (14 Feb 08)
 - *"The Fishery Crisis"*, part of "Sustainability" series, Wabash Area Lifetime Learning Association (WALLA), Morton Center, West Lafayette (65 people attended) (Apr., 2008)
 - *"TSCreator Russian and Arctic databases"*. The Novaya Zemlya Project (sponsored by Oslo Museum of Natural History), Nov, 2008.
- 2009 From Russia "With Love": Oil, Gas, Money and Power. EAS Seminar, Purdue University; 12 Feb 2009.
 - Superplumes and Supergiants Oil of the Middle East. Geoscience Australia, Canberra, Australia; June 2009.

[NOTE: for 2010 thrugh 2012, see "invited" presentations below]

- 2013 *Texas Oil Tycoons*, Geoscience Australia, Canberra; 30 July 2013 *Geologic TimeScale and Earth History Visualization*, China University of Geosciences,
 - Wuhan, China; 25 Sept 2013.
 Geologic TimeScale and Earth History Visualization, Chengdu University of Technology; Chengdu, China; 27 Sept 2013
- 2014 Texas Oil Tycoons, Purdue University (Discovery Lecture, EAPS); 23 Jan 2014 Geologic TimeScale and Earth History Visualization, University of Leuben; Leuben, Belgium; 30 Mar 2014

4. INVITED PUBLICATIONS [Note: I stopped compiling after 2008; and merely noted these in the publication list as a "note"]

"Jurassic magnetostratigraphy - review and compilation" International Symposium on Jurassic Stratigraphy, Erlangen, Germany, Sept. 1-8, 1984.

"Jurassic magnetic polarity time scale", invited chapter for The Jurassic of the Circum-Pacific (G.E.G. Westermann, editor; Elsevier Publ.), Jan, 1989.

"Magnetostratigraphic correlation of the Jurassic-Cretaceous boundary, Tethyan and English faunal realms", invited paper for special issue Cretaceous Research, July 1991.

- "Sedimentation rate curves and discontinuities from sliding-window spectral analysis of logs", invited summary for *The Log Analyst*, (Dec.1990), [with reprint in Lamont Borehole Group Logging Manual], Jan. 1991.
- "Geologic time scale" and "Phanerozoic magnetostratigraphy", invited compilations for the AGU Handbook of Geophysics, Nov. 1992.
- *"Mesozoic magnetic polarity time scale". in* de Graciansky, P.C., and Hardenbol, J., eds., <u>Mesozoic and Cenozoic Stratigraphy of European Basins</u>: Tulsa, SEPM Special Publication 60, 1998.

5. INVITED SHORT COURSES

Fall 1988 -- Dipartmento Scienze della Terra, Universita della Calabria, Consenza, Italy --Invited to present an intensive multi-day short course on "*Magnetostratigraphy*" at the state university.

[NOTE: One-day workshops of recent years are listed elsewhere]

D. OTHER PRESENTED PAPERS

[See listing of *Published Abstracts and Summaries* for all years.]

E. OTHER PROFESSIONAL ACTIVITIES

1. Outreach products

We have concentrated on global distribution of free or at-cost teaching resources for Earth History. *The current (2008-2010) activities are summarized on the first pages of this Vita (after Teaching).*

- 2. Invited Participant [NOTE: I stopped listing after 1995, because I was being constantly invited to participate in conferences, etc.; instead, Keynotes and special travel grants are indicated under Professional activities]
 - 1986 Sept. -- "Paleomagnetic Objectives for the Ocean Drilling Program", workshop sponsored by Joint Oceanographic Institutes (Davis, Calif.; travel support from U.S. Science Activities Council), report on recommendations published (1986, 27 pages)
 - 1987 July -- "Second Conference on Scientific Ocean Drilling (COSOD II)", Strasbourg, France; participant in working group on Biota and Evolution in the Marine Environment; report on objectives for future drilling published (1988, about 150 pages)
 - 1987 Sept -- Second International Symposium on Jurassic Stratigraphy, and Subcommission on Jurassic Stratigraphy (Lisbon, Portugal; served as Convenor of the Magnetostratigraphy Working Group, presented 3 papers (see publications); proceedings in press (1988, 3 volumes).
 - 1989 Mar -- "Co-chief's Review of the Ocean Drilling Program", Texas A&M (3 days)
 - 1989 Apr -- American Association of Petroleum Geologists, Annual Meeting, San Antonio (presented one paper; co-author on three others)
 - 1989 July -- 28th International Geological Congress, Washington, D.C. (presenting two papers; co-author on two others)
 - 1991 July -- "Indian Ocean Paleoceanography" workshop, Cardiff, Wales
 - 1991 Sept -- 3rd International Jurassic Symposium, Poitiers, France (presenting one paper, cochair session, chairman of working group)
 - 1992 Sept -- 4th International Paleoceanography Conference, Kiel, Germany (presenting two papers and one poster)
 - 1993 Apr -- American Assoc. Petroleum Geologists, Annual Meeting, New Orleans (presented one paper)
 - 1994 Jan & July -- Earth Systems Science Education, 2 meetings in Washington, D.C. (presented development of Purdue's courses)
 - 1994 Oct -- 4th International Jurassic Congress, Mendoza, Argentina (presented one paper, chairman of working group)
 - 1995 Jan -- Joint Oceanographic Institutions advisory committee (NSF), Washington, D.C.

3. Journal Reviewer (usually 7 papers per year)

Geology Proceedings Ocean Drilling Program Earth and Planetary Science Letters Episodes Paleoceanography Earth Science Reviews

4. Proposal Reviewer (usually 4 proposals per year)

NSF -- Earth Science, International Programs, Ocean Science NCAR -- Paleoclimate 5. Book Reviewer (usually 1 every 3 years)

Principles of Sedimentation and Stratigraphy (by S. Boggs, MacMillan Publ.)
 World's Oceans, A.C. Duxbury and A.B. Duxbury: W.C. Brown Publ.), Oceanography: An Invitation to Marine Science (by T. Garrison; Wadworth Publ.); and two other manuscripts for oceanography textbooks (not published, perhaps because I gave rather unfavorable reviews).

The Earth System (by J. Kastens, J. Kump and R. Crane; Prentice-Hall Publ.)

F. FUNDING

- 1. Funding Table (Principal Investigator, unless otherwise noted)
- i. "Tethyan Jurassic Pelagic Sediments" (Co-investigator) NSF EAR78-10786, Aug,1978-Sept,1981 \$107,600
- ii. "Magnetostratigraphy of the Late Jurassic, Northern Italy" NSF travel grant, International Programs Division \$5000
- iii. "Geomagnetic Polarity during the Jurassic" (Co-investigator) NSF EAR81-7739, July,1981-July,1983 \$99,979
- iv. "Early Cretaceous Magnetic Polarity Time Scale, Milankovitch Climate Cycles, and Spreading Rates"
 NSF EAR82-6263, Oct,1982-Mar,1984 \$48,241
- v. "Magnetic Reversal History, Climate Cycles, and Ocean Spreading Rates during the Early Cretaceous" NSF grant #INT82-13069, Mar,1983-Aug,1985 \$4,780,
- vi. "Jurassic and Early Cretaceous Tectonic and Sedimentation History of the Central Atlantic, Western Tethys and Pacific Ocean Basins" (Co-investigator) NSF OCE82-07771, Oct,1982-Sept,1985 \$177,965
- vii. "*The Paleozoic-Mesozoic Boundary*" (Co-Investigator) NSF EAR84-19125, Jan,1985-Jan,1987 \$100,000

- viii. "A Magnetic Polarity Time Scale from the Early Triassic Stage Stratotypes (Sverdrup Basin, Canadian Arctic)"
 NSF grants DPP-8520910 and DPP87-44206, Apr,1986-July,1988 \$51,788 and \$32,028 respectively
- ix. "Mesozoic Magnetostratigraphy and Correlation of Sediment Facies" NSF (U.S. Science Support Program, Ocean Drilling Project) (through Texas A&M), #1892-003; Sept,1985-Sept,1988 \$21,000
- x. "Stability of the Magnetic Field during the Triassic-Jurassic Boundary Interval: A Test of 'Pulsation Tectonics'"

Purdue Research Foundation, Summer Faculty XL grant, Summer 1988 \$3900

- xi. "Birth of the Indian Ocean" NSF (U.S. Science Support Program, Ocean Drilling Project) (through Texas A&M), Sept,1988-August,1989 \$18,500
- xii. "Stratigraphy of Eocene Sedimentation of the Monterrey Formation" (Co-investigator) NSF Stratigraphy-Paleontology, July 1988 - July 1990 \$7,500 subcontract to Purdue University
- xiii. "Magnetostratigraphy of the Missippian-Pennsyvanian Boundary" Indiana Academy of Science, Apr 1989-Apr 1990 \$750
- xiv. "Birth and Early History of the Indian Ocean"
 NSF (U.S. Science Support Program, Ocean Drilling Project) (through Texas A&M), Mar 1989
 Oct, 1990
 \$28,999
- xv. "Sedimentation History of the Ancient Pacific, Ocean Drilling Project Leg 129, Western Pacific Ocean"
 - NSF (U.S. Science Support Program, Ocean Drilling Project) (through Texas A&M), Nov 1989 - Nov 1990 \$20,228
- xvi. "Old Pacific Crust and Jurassic Quiet Zone: Paleomagnetic and Rock Magnetic studies ODP Leg 129, East Mariana and Pigafetta Basins, Western Pacific Ocean"
 - NSF (U.S. Science Support Program, Ocean Drilling Project) (through Texas A&M), Nov 1989 - Nov 1990

\$7,685

- xvii. "Jurassic-Early Cretaceous Sedimentary Environments and Paleoceanography of the Pacific, Ocean Drilling Project Leg 129"
 - NSF (U.S. Science Support Program, Ocean Drilling Project) (through Texas A&M), May 1990-Nov 1991

\$22,000

- xviii. "Origin of the Jurassic Quiet Zone and Paleolatitudinal Motion of the Pacific Plate, Ocean Drilling Program Leg 129"
 - NSF (U.S. Science Support Program, Ocean Drilling Project) (through Texas A&M), May 1990 - Nov 1991 \$20,758
- xix. "Formation of Pacific Atolls and Guyots during the Cretaceous, Ocean Drilling Program Leg 144"
 - NSF (U.S. Science Support Program, Ocean Drilling Project) (through Texas A&M), May 1992 - Aug 1993 \$23.232
- xx. "Development and Demise of Pacific Guyots" NSF (U.S. Science Support Program, Ocean Drilling Project) (through Texas A&M), Oct, 1992 - Aug 1994
 \$14,000
- The following two awarded grants had to be <u>declined</u> because of prior teaching or research commitments:
 - "Oxfordian Time Scale -- Collaborative Program with University of Warsaw" National Academy of Sciences, Aug, 1993-Aug, 1994 \$10,000
 - "Eastern Mediterranean Climatic History, ODP Leg 161" NSF (U.S. Science Support Program, Ocean Drilling Project) (through Texas A&M), Feb, 1995 - Feb, 1996 up to \$25,000, with additional \$15,000 upon completion of drilling leg
- xxi. "IBM-Purdue Water-Climate Modelling Program" (Co-Investigator) IBM Corporation, Jan. 1993 - Dec 1997 \$500,000 direct funds + \$1,800,000 equipment allowance
- xxii. "Earth System Science Education Curriculum Development" (Co-Investigator) NASA (Universities Space Research Association), July, 1993-June, 1996 \$75,000, plus additional \$50,000 travel allowance for July, 1992-June, 1997
- xxiii. Paleomagnetic stratigraphy on Leg 171, western Atlantic
 NSF (U.S. Science Support Program, Ocean Drilling Project) (through Texas A&M), Jan, 1997
 Jan, 1998

\$18,872

- xxiv. Maastrichtian-Paleocene-Eocene time scale of polarity chrons, orbital cycles and biostratigraphy
 - NSF (U.S. Science Support Program, Ocean Drilling Project) (through Texas A&M), May 1997-May 1999
 - \$32,357 (\$24,857 administered by Purdue; plus \$7,500 travel for cooperative research at Oxford University, England, and University of Bremen, Germany)
- xxv. An integrated Earth & Atmospheric Science computer laboratory for undergraduate instructional improvement
 - NSF (Aug, 1997-July, 1999) Co-PI with Carol Clayson, Larry Braile, Jon Harbor, Grant Petty \$39,115
- xxvi. Sedimentation history of Ontong Java Plateau (Ocean Drilling Program, Leg 192, equatorial Pacific)
 - NSF (U.S. Science Support Program, Ocean Drilling Project) (through Texas A&M), Sept, 2000 Sept, 2001

\$18,872

- xxvii. The Environmental Impacts of the Ontong Java Plateau: Aptian and Albian Paleoceanography of the Tropical Pacific Basin
 - NSF (U.S. Science Support Program, Ocean Drilling Project) (through Texas A&M), May 2001-May 2003
 - \$31,071 (plus separate travel grants to College Station, TX and La Jolla, CA for sample collection during May 2001 and August 2001, respectively)
- xxvii. Integration of Chronostratigraphic Databases for the 21st Century NSF (Oct., 2001-Oct., 2002)
 PI, with Paul Sikora (Univ. Utah) as Co=PI
 - \$26,000 (administered through Purdue)
- xxix. Geological Time Scale 2003 Compilation, production and publication of the modern geological time scale
 Exxon-Mobil Exploration Company (Jan, 2002-Dec, 2003)
 PI, with Felix Gradstein (Oslo University, Norway) as Co=PI \$20,000 (administered through Purdue)
- xxx. Paleoceanography of the Atlantic-Caribbean-Pacific Seaway (participation on Ocean Drilling Leg 207)
 - NSF (U.S. Science Support Program, Ocean Drilling Project) (through Texas A&M), Jan, 2003 - Dec, 2004
 - \$36,129 [plus travel support to Barbados/Brazil].
- xxxi. Magnetostratigraphy of Leg 207 sites, and cycle-durations of Campanian through Eocene magnetic polarity chrons
 - NSF (U.S. Science Support Program, Ocean Drilling Project) (through Texas A&M), Jan, 2003 - Dec, 2005
 - \$30,226 [plus travel support to Germany].

xxxii. Chronos Network for Earth System History: Development of Integrated Databases and Toolkits Accessible through a Common Portal.

NSF (Purdue had the following independent grant, as part of a larger multi-institution award), Aug, 2003 - July, 2006 (including no-cost extension) \$129,999 [plus travel support for meetings]

xxxiii. Chronos Network for Earth System History: (1) Time Scale of Earth History – database enhancement, tools and visualization; (2) Database Development for Magnetostratigraphy.

NSF (through Iowa State University); Sept, 2005 - Aug, 2007 (including no-cost extension) \$30,00 [plus travel support for meetings]

xxxiv. "An Astronomical-Calibrated Time Scale for the Mesozoic Era" NSF (co-PI); July, 2007 - June, 2010 \$163, 535 (Purdue share)

xxxv. "Visualization for Earth History and Oil" Halliburton (PI), Nov 2011-Nov 2013 \$15,800

2000-2013: Support of activities of International Commission on Stratigraphy

IUGS (International Union of Geological Societies) – budget granted in March each year: \$35,000 (2001); \$34,000 (2002); \$35,000 (2003), \$50,000 (2004), \$30,000 (2005), \$30,000 (2006), \$30,000 (2007), \$40,000 (2008) (administered separately by J.Ogg, not co-mingled with Purdue funds)

ICS (Subcommission on Stratigraphic Information) – budget granted in September, 2008: Multi-year block grant: \$21,000 (2008-2014) (administered separately by J.Ogg, not comingled with Purdue funds)

Current Grants:

"Digital Time Scale"

Unrestricted donations from Geoscience Australia, BP, Univ. Oslo, Saga Petroleum, Norsk Hydro, UNOCAL, Amoco, Geologic TimeScale Foundation, and private donors. Jan. 1993 -

Total of about \$350,000 received (1993-2014).

I have continual interaction with major petroleum corporations (mainly ExxonMobil, BP, Shell, StatoilHydro, Chevron and ConocoPhilips), but most of the fund-raising has gone into our international outreach activities and support to the International Commission on Stratigraphy. This consortium provided EAS a grant during late 2006 that funded 3 months of my (Spring 2007) research leave.

Other Fellowships, Travel Grants, and Fully-Reimbursed Conference Participation:

	grants to about 5 places each year.
2004	- 2009 – I didn't keeping track of all of these. It seemed that I was provided with travel
	session convener, plus invited speaker in another session), Aug, 2004.
2003	PRF Travel Grant to Florence (Italy) for the International Geological Congress (I was a
	2003.
2003	U.S. Geological Survey – Travel support to GSA Annual Meeting, Seattle, 2-5 Nov,
2005	de Janeiro (Brazil) and Normandy (France)
2003	Ocean Drilling Program Leg 207 3 months salary (xxx above) travel to Barbados Rio
2002	American Geological Institute – Conference on Geological Databases (Washington, $D = 17-19$ January 2002)
2002	(Dallas, 1exas, 20-23 Aug, 2001) American Geological Institute – Conference on Coological Databases (Weshington
2001	International Commission on Stratigraphy – Conference on Sequence Stratigraphy (Dallag, Tayag, 20, 22, Aug. 2001)
0001	Diego, College Station (Texas) and Pocatello (Idaho)
2000	Ocean Drilling Program Leg 192, 3 months salary (xxvii above), travel to Guam, San
• • • •	session convener, plus invited speaker in another session), Aug, 2000.
2000	PRF Travel Grant to Rio de Janeiro for the International Geological Congress (I was a
	(Caribbean); and Granada, Spain
1997	Ocean Drilling Program Leg 171, 3 months salary (xxiii, above), travel to Barbados
-	initiatives (Earth Systems, women in Geosciences)
1993	Special Graduate Fellowships, total award of \$18,000, from Purdue for special
	Paleoceanography, Kiel, Germany
1992	Purdue Research Foundation Travel Grant to 4th International Conference on
- <i>>>⊔</i>	invited speaker.
1992	4th International Conference on Paleoceanography. Kiel. Germany. 1000 DM grant as
1992	National Academy of Sciences Project development visit to Poland August 1997
1774	from Tokyo
1992	Ocean Drilling Program Leg 144–3 months salary (xix above) travel to Majuro and
1771	expenses
1991	Workshop on Indian Ocean Paleoceanography travel to and from Cardiff Wales and
1989	Ocean Drilling Program Leg 129-3 months salary (xy above) travel to and from Guam
	reimbursed
1700	professorship taught 2-week short course in December: salary and expanses
1099	Siligapuit Dipartmento Scienze della Terra Universita della Calabria Consenza Italy, visiting
1900	Singapore
198/	Purque Travel Grant to attend jurassic Stratigraphy Symposium, Lisbon, Portugal
1007	Drilling (COSOD II), Strasbourg, France
1987	Joint Oceanographic Institutes, travel support to Conference on Scientific Ocean
1007	Germany
1985	Ocean Drilling Program Leg 103, 3 months salary, expenses to Norfolk and from
100-	Moscow, USSR
1984	American Geological Institute travel award, 27th International Geological Congress,
1983	Deep Sea Drilling Project Leg 93, 3 months salary, expenses to and from Norfolk
	Caledonia
1982	Deep Sea Drilling Project Leg 89, 3 months salary, expenses to Tokyo and from New
	Lauderdale
1980	Deep Sea Drilling Project Leg 76, 4 months salary, expenses to Norfolk and from Ft.

2008 PRF Travel Grant to Oslo (Norway) for the International Geological Congress (I was a session convener, plus invited speaker in two other sessions), Aug, 2008.

G. INVOLVEMENT IN GRADUATE RESEARCH PROGRAM

1. Current Graduate Students

Master's Committees

Chairman or Member:

Rebecca Bobick (project on Africa petro-basin stratigraphy database) Katelyn Verner (project on South America petro-basin stratigraphy database)

Member

- Seamus Clarke (joint Ireland-Purdue-Spain international degree on Fracking applications). I took him to a Chesapeake fracking operation in Ohio in Dec'12 as part of this fascinating project
- RA support is being provided (Spring-Fall, 2011-2014 to **Nag Varun Chunduru** (computer engineering; but paid via my EAS grants) for Earth-history viewing system enhancement. However, I am not his official advisor.
- RA support also given to Zsika Philips (computer science; but paid via my EAS grants) for Earth-history viewing system enhancement. However, I am not his official advisor.

Doctoral Committees

Chairman: Member:

2. Graduated M.S. and Ph.D. Students

Past Master's Committees

Non-completions:

- 1995 Gregory Schrader: "Modelling of Milankovitch cycles in Jurassic deep-sea sediments"
- 1999 Amanda Hopkins: "Oxfordian magnetic polarity time scale"
- 2001 Carol Conolly: "GIS evaluation of Indiana's coal resources" (was completed and published jointly with Indiana Geological Survey; but not formalized in Purdue thesis format)

Chairman or Co-Chair:

- 1987 Suzanne Kairo: "The sedimentology, stratigraphy and depositional history of the Cretaceous Split Rock Creek Formation, Minnehaha County, South Dakota". Now at ExxonMobil.
- 1990 Rhonald W. Hasenyager, II: "Magnetostratigraphy of the Jurassic/Cretaceous boundary -- Tethys and English Correlations"
- 2000 Tricia Geib: "Astronomical tuning of the Danian and the Aptian-Albian boundary interval time scales".

- 2005 Chunfu Zhang: "Geochemical signature of orbital cycles in deep-sea sediments". [Had been PhD until the final months.]
- 2011 Jose Herrara: "Sequence Stratigraphy education methods"
- 2012 Bharath Kainkaryam: "Gulf of Mexico Depth-Age and Sequence-stratigraphy teaching module"
- 2013 Rachel Gipe: "Callovian magnetostratigraphy"

Member:

- 1988 Brenda L. Dextraze: "The paleoenvironmental effect of high latitutes on the internal growth lines of the Late Eocene biovalve <u>Eurhomalea Antarctica</u>
- 1988 Jeffrey D. Stilwell: "The biostratigraphy of Early Tertiary macroinvertebrates from the La Meseta Formation, Seymour Island, Antarctic Peninsula"
- 1989 Luis Marie Paredes-Mejia: "Depositional environments and paleontology of the Rosario Formation, North Baja California"
- 1990 Herbert Harmon: "Coal Petrology of the Illinois Basin"
- 1996 Dave Zinliskas: "Mexican Ridges Foldbelt"
- 1998 Charlene Fricker:
- 2001 John Foster: "A Field Laboratory and Analytical Study of Progressive Roof Failure in Salamander Cave, Indiana"
- 2008 Emre Unal: "Cambrian oncolite fauna"

Past Doctoral Committees

Non-completions:

- 1992 (member) -- Peter Sikorski: "Paleozoic stratigraphy of the Illinois Basin"
- 1993 (chair) -- Stefania Graziano (Univ. Calabria, Italy): "Early Triassic magnetostratigraphy of the Dolomites"
- 2003 (member) -- John Teufert: "GIS disaster management system"
- 2005 (*chair*) -- Chunfu Zhang: "*Geochemical signature of orbital cycles in deep-sea sediments*". But, at end, received only a Masters degree, and now getting another doctorate at Florida State University.

Chairman:

- 1992 Brian P. Wallick: "Motion and development of the Pacific Plate from the Middle Jurassic to the Late Cretaceous". Now with Saudi Aramco.
- 2008 Piotr Przbylski: "Magnetic Polarity Zonation and European Paleomagnetic Poles for the Upper Jurassic". Completed Dec, 2008; currently with BP (Houston)

Member:

- 1987 Hanafy Holail: "Stable isotopic composition and its relation to origin and diagenesis of some Upper Cretaceous dolomites and dolomitic limestones from Egypt"
- 1990 Zehui Huang (Dalhousie Univ., Halifax): "Pelagic cyclic sediments from the oceans -their periodicities and driving force"
- 1992 Marilyn Ginger Scarbrough: "Numerical modelling of the Mexican Ridges Foldbelt, Gulf of Mexico"
- 1995 Jim Reichard: "Groundwater Component of a General Circulation Model"
- 1998 Anton Olenik: "Paleocene-Eocene biogeography of Kamchatka"
- 2008 Slah Boulila (University of Paris)

V. SERVICE [Records are not complete for 2001-2008]

A. DISCUSSION OF SERVICE

B. DEPARTMENT OF EARTH AND ATMOSPHERIC SCIENCES

Current committees

- (1) Library and Safety Committee (2012-)
- (2) Awards Committee (2010-)

Past committees

1986-1988	Curriculum committee
1987	Departmental Computing committee
1987	Faculty Advisor, SEG student club
1988	Chairman, Search committee for sedimentary geology position
1988-93	Undergraduate Committee (and again 2009-2010)
	This includes organizing EAS Student Forums (which Jon Harbor hosts)
1989	Departmental 5-year Plan (writer for geology group)
1989-90	Chairman, Seminar committee
1990-91	Seminar committee
1990-91	Search committee for paleoclimate position
1991-92	Chairman, Search committee for sedimentology position [Hired Ken Ridgway]
1992-93	Search committee for atmospheric chemistry position
1993-01	Graduate Committee
	Chair: 1997-1999
2001	Search committee for climate position [Hired Tim Filley]
2000-2005	Field committee
2008-2010	Accreditation Coordinator for EAS report on geology and on atmospheric
	undergraduate programs
2009-2010	Graduate Committee

Former *chair* of PACs for: Tim Filley Darryl Granger Qianlai Zhuang

C. SCHOOL OF SCIENCES

Current committees

- (1) EAS *alternative* representative to Grade Appeals Committee (May 04 Present)
- (2) EAS representative to Grievance Committee (2008-2011)

Past committees

1995-1996	Chairman, Environmental Minor Committee
2005-2006	Curriculum Committee

D. PURDUE UNIVERSITY

Current committees

- (1) University Senate (2009-2015);
- (2) Senate committee for undergraduate affairs (2009-2015)
- (3) EAS department liaison to Study Abroad programs (2002 Present)

Past committees

1990-1996; and 1998-2000

Faculty Censure and Dismissal committee

E. **INTERNATIONAL** – See section on "Professional Recognition" on first pages.

F. CONSULTING SERVICES

Current

- Geoscience Australia (2006-present). One-and-half months of summer salary provided in 2007 and 2008.
- ExxonMobil (2004-present). Migration of their in-house stratigraphy to GTS2004 time scale, producing timescale charts for public distribution, and in-house datapacks for *TimeScale Creator*.

BP (2008-present). Advanced application of Earth history databases (TSCreator)

Past (incomplete)

1986-88	Paleomagnetic magnetometer computerization (2G Enterprises, and Ocean Drilling
	Program) automated data collection from pass-through cryogenic magnetometer
	for ocean sediment cores. Software package and manual.
1989	Jurassic paleomagnetism of the Blue Mountain terrain in Oregon University of
	Wyoming sampling and data analysis.
1992-94	Mesozoic magnetic polarity time scale EXXON Production Research Company,
	Houston, TX
1993-95	Phanerozoic time scale software and database Saga Petroleum (Norway) and Norsk
	Hydro (Norway)
1994-95	Cenozoic time scale for Gulf of Mexico UNOCAL Petroleum (Houston)
1994-95	Jurassic/Cretaceous boundary stratigraphy University of Texas at Dallas sampling
	and analysis
1998-99	Cenozoic-Mesozoic time scale Saga Petroleum (Sandvika, Norway)
2000 onwar	d – period (about 1 week per year) consulting with BP, ExxonMobil, and
	NORGES/NORLEX.