VERTEBRATE NATURAL HISTORY
IB 104LF

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Office hours for faculty and GSIs will be posted on bCourses during week 1. Please CC all faculty and GSIs when emailing the instructional team.

Lecture: Tues, Thurs, 09:30-11:00 PST. Lab: Wed 1-4 pm PST, Thurs 2-5 pm PST. See bCourses for Zoom meeting links.

Required Books:

Sibley, D. A. 2016. *The Sibley Field Guide to the Birds of Western North America: Second Edition*. Alfred A. Knopf.

Stebbins, R. C. and S. M. McGinnis. 2018. *Peterson Field Guide to Western Reptiles and Amphibians,* 4th Edition. Houghton Mifflin Harcourt.

Reid, F. A. 2006. *A Field Guide to Mammals of North America*. Peterson Field Guide Series, 4th edition. Houghton Mifflin Company.

Bowie, R. C. K., J. A. McGuire, A. Rush, and A. B. Shabel. 2021. Vertebrate Natural History Laboratory and Field Syllabus for Integrative Biology 104L. (Available on bCourses for IB 104LF)

Point allocation for the course (Subject to change):

Course component	Field trips approved		Field trips cancelled (subject to change)	
Lecture	1 mid-term exam (birds and amphibians)	150 pts.	1 mid-term exam (birds and amphibians)	150 pts.
	1 final exam (mammals and reptiles)	150 pts.	1 final exam (mammals and reptiles)	150 pts.
Lab	2 laboratory practical exams	200 pts.	2 laboratory practical exams	200 pts.
	12 "Form & Function" accounts	120 pts.	12 "Form & Function" accounts	120 pts.
Field	1 independent field project / term paper / field guide to CA parks	150 pts.	1 independent field project / term paper / field guide to CA parks	150 pts.
	1 field notebook (10 trips, 20 species accounts)	100 pts.	1 field notebook (10 independent trips, 20 species accounts)	100 pts.
	Field trip attendance (10 trips)	100 pts.		
	Total points possible	970 pts.	Total points possible	870 pts.

Laboratory: Please read the following sections in the lab syllabus before the first lab meeting: Introduction, Materials, Instructions of use of laboratory specimens, Maps, and Laboratory exercises on birds. You may not attend a lab section other than the one to which you have been assigned. If you should miss your lab meeting for a valid reason, see your GSI for a note permitting you to attend the other section.

Field trips:

Campus and the city of Berkeley have asked us to postpone in-person fieldtrips for the time being. We will maintain flexibility going forward hoping that at least some trips will be possible.

Please check the bCourses page and the announcements for updates throughout the semester. Before the first field trip read the sections on field notes in the lab syllabus. Bring a field notebook to the first field trip and also bring a pen with waterproof black ink (see the "Materials" section in lab syllabus). See notebook examples in the laboratory. The field notebook will be handed in on **February 25** in lecture for a progress inspection. It is required that you bring binoculars and a field guide on all trips. 7X-10X power binoculars with coated lenses and center focusing are best for observing birds, but other kinds may be suitable.

ATTENDANCE IS REQUIRED ON ALL 10 FIELD TRIPS.

Field trips will be held rain or shine so come dressed appropriately. No umbrellas, pets, friends, or relatives are allowed on IB 104 field trips.

Independent field project: One of the most important requirements for this course is a written report on your individual field project. Read the sections on "Individual field project in vertebrate biology" the "Research proposal" in the lab syllabus before selecting a topic. You must discuss your proposed topic with an instructor and/or GSI. We recommend that you begin these discussions early in the semester. Before beginning the project, turn in a research proposal ("Research proposal guidelines in lab syllabus). The proposal is due in **February 25** in lecture. If you intend to study either amphibians or wintering birds, you should obtain early approval; these animals are not usually available for study after mid-March.

The typed report for your independent field project must be understandable without reference to anything else, even your field notes. Do not use library references; the basis for the report must be the original data that you have obtained in the field through your own efforts. You may not use for IB 104LF the same project you have done, or are doing, for another course. No joint projects are allowed, but for reasons of safety we recommend that when possible you conduct your fieldwork with one or more students from the course. **Do not work alone in remote sections of parks or in areas where you feel unsafe.**

YOUR APPROVED RESEARCH PROPOSAL AND ALL FIELD NOTES AND DATA SHEETS PERTAINING TO YOUR PROJECT MUST BE HANDED IN WITH THE TYPED REPORT AT THE END OF THE SEMESTER. GRADES FOR LATE PROJECTS WILL BE SEVERELY REDUCED.

Spring 2021 VERTEBRATE NATURAL HISTORY IB 104LF

LECTURE			LABORATORY	FIELD
T	Jan 19	Intro/Vertebrate Diversity	Jan 20, 21 Birds	Jan 22, 23 *Fully remote*
TH	Jan 21	Birds		
T	Jan 26	Birds	Jan 27, 28 Birds	Jan 29, 30 *Fully remote*
TH	Jan 28	Birds		
T	Feb 2	Birds	Feb 3, 4 Birds	Feb 5, 6 Birds: Berkeley
TH	Feb 4	Birds		Aquatic Park
T	Feb 9	Birds	Feb 10, 11 Birds	Feb 12, 13 Birds: Arrowhead
TH	Feb 11	Birds		Marsh
T	Feb 16	Birds	Feb 17, 18 Amphibians	Feb 19, 20 Birds: Coyote Hills
TH	Feb 18	Amphibians		
T	Feb 23	Amphibians	Feb 24, 25 Amphibians	Feb 26, 27 Amphibs: Briones
TH	Feb 25	Amphibians		(Alhambra Valley Rd.)
T	Mar 2	Amphibians	Mar 3, 4 **Lab Exam**	Mar 5, 6 Amphibs: Briones
TH	Mar 4	Mammals	(Birds and Amphibs)	(Bear Creek Rd.)
T	Mar 9	**Lecture Exam 1**	Mar 10, 11 Mammals	Mar 12, 13 Mammals: Tilden,
TH	Mar 11	Mammals		Wildcat Canyon
T	Mar 16	Mammals	Mar 17, 18 Mammals	Mar 19, 20 Mammals:
TH	Mar 18	Mammals		Pt. Pinole
T	Mar 23	Spring recess	Mar 24, 25 No labs	Mar 26, 27 No field trips
TH	Mar 25	Spring recess		
T	Mar 30	Mammals	Mar 31, Apr 1 Mammals	Apr 2, 3 *Fully remote*
TH	Apr 1	Mammals		
T	Apr 6	Mammals	Apr 7, 8 Reptiles	Apr 9, 10 General: Pt. Reyes
TH	Apr 8	Mammals		
T	Apr 13	Mammals	Apr 14, 15 Reptiles	Apr 16, 17 Birds (dawn chorus):
TH	Apr 15	Reptiles		Tilden, Lone Oak (5:30-9:30am)
T	Apr 20	Reptiles	Apr 21, 22 Reptiles	Apr 23, 24 Reptiles: Sunol
TH	Apr 22	Reptiles		
T	Apr 27	Reptiles	Apr 28, 29 **Lab Exam**	May 1-2 General: Hastings
TH	Apr 29	Reptiles	(Mammals and Reptiles)	(8 AM Sat. to 5 PM Sun.)

Tentative Field Trip Schedule 2021

Week	Date	Location
1	Jan 22, 23	*Fully remote*
2	Jan 29, 30	*Fully remote*
3	Feb 5, 6	Birds: Berkeley Aquatic Park
4	Feb 12, 13	Birds: Arrowhead Marsh
5	Feb 19, 20	Birds: Coyote Hills
6	Feb 26, 27	Amphibs: Briones (Alhambra Valley Rd.)
7	Mar 5, 6	Amphibs: Briones (Bear Creek Rd.)
8	Mar 12, 13	Mammals: Tilden, Wildcat Canyon
9	Mar 19, 20	Mammals: Pt. Pinole
10	Mar 26, 27	*Spring Break (no field trip)*
11	Apr 2, 3	*Fully remote*
12	Apr 9. 10	General: Pt. Reyes
13	Apr 16, 17	Birds (dawn chorus): Tilden, Lone Oak
14	Apr 23, 24	Reptiles: Sunol
15	May 1-2	General: Hastings (overnight adventure)

Important dates:

Field notebook handed in in lecture for preliminary evaluation due: **February 25**
Field project proposal due: **in lab on February 24 (W lab), 25 (Th. lab)**
Field project submission for peer review due: **in lab on April 21 (W), 22 (Th)**
Final version of Field Project due: **Friday April 30**
Field notebook final version due: **Friday April 30**

Final Exam: Wednesday May 12 11:30 AM-2:30 PM