

Request for Land, Labor and Facilities at the

Sierra FoothillField StationDate 12-10-74

1. Project Leader:

- (a) Name, title, department (or agency) and campus (or location).

Kenneth B. Zaisvil Psychology Department (Grad Group in Ecology)

- (b) Mailing address and telephone number

636 Radcliffe Dr. Davis, California 95616

2. Project cooperators: Names, titles, department & campus

Dr. Donald Owings Ph.D. Psychology Dept. U.C.D.Dr. Robert L. Rudd Ph.D. Zoology Dept. U.C.D.Dr. Robert G. Schwab Ph.D. Dept. of Animal Physiology U.C.D.

3. Experiment Station Project Number and Title

4. Outline of work to be done at station:

Trapping study of ringtail cats and raccoons. Possibly incurring
radio tracking of the animals.

5. Justification statement for project and reason it should be done at

Sierra Foothill Field Station.There is a confirmed population of ringtails present at the field
station and surrounding vicinity. Also its close proximity to Davis
is essential to my conferring with my graduate professor and project
advisors.6. Duration of project: Starting date February Completion date: October (tentative)

7. Project funding:

- (a) Source of funds (19900, grant, etc.)
- personal, work study, grant

- (b) Will project pay for all or part of Field Station cost
- all
- .

If so how much ?

8. Requirements for labor, land, facilities, equipment, and other supplies. Please complete the attached check list. Provide a separate check list for each crop if the requirements are substantially different.

9. Do you anticipate expansion of this project? no. If so, when and how much?10. Name of department and campus sponsoring this project Psychology DepartmentDonald H. Owings
graduate professorKenneth B. Zaisvil
Project Leader Signature

Approved by:

Robert L. Rudd
department chairman

County Director Ag. Extension (if proposal by farm advisor)

Date

Department Chairman

Date

Please submit 15 copies to Committee Chairman and an informational copy to Campus Associate Director, Agricultural Experiment Station; Director of Agricultural Field Stations; and Station Superintendent. If submitted by Agricultural Extension Staff submit an informational copy to Regional Associate Director of Agricultural Extension (of area where station is located).

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Field Station

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RECEIVED

DEC 27 1971

AG. FIELD STATIONS

✓	JM	12/27
	ES	
	KG	
F		
C		
S		

December, 20, 1971

Mr. James L. Myler
Agricultural Experiment Stations
T.B. 10
U.C. Davis

412 F. Street
Davis, California 95616

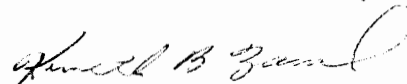
Dear Mr. Myler:

In reference to our previous meeting concerning the possibility of using experiment station facilities to perform my graduate research, I would like to inform you that this is still of primary interest with me.

As mentioned, I am interested in doing some trapping studies on the Ringtail Cat (Bassariscus astutus), which is known to inhabit the Brown's Valley Sierra Foothill Field Station area.

If at all possible, I would like to arrange to live in residence where I intend to carry out my work, and to live in residence at the Brown's Valley station would be ideal. I have submitted my research proposal to several agencies, however, I must admit, these financial resources look bleak. I am hoping to meet with you again and with whatever personnel that I need also make arrangements with at the field station. As noted in our previous conversation, I am available for part time work there at the station, and this would be of immense help to me as I have not requested support for myself. I am enclosing a copy of my proposal, and am looking forward to hearing from you soon. In the proposal, you will note, the schedule calls for work to begin in February, if possible, I would like to begin earlier.

Thank you and best wishes
for a Merry Christmas,



Kenneth B. Zemplin
Department of Environmental Studies
Graduate Group in Ecology
U.C. Davis

Proj. #41
X 11.04

To: Members, Advisory Committee
Sierra Foothill Range Field Station
From: M. Rouning
Re: Project approval

Enclosed is a project proposed for Graduate Thesis Research to be conducted at SFRFS. It is entirely within the objectives as discussed by the Advisory Committee. No special facilities nor labor are requested. Therefore, it will be considered approved unless statements to the contrary are received by 10 Feb. 1972.

The project leader has made arrangements with Field Stations for living accommodations at the old headquarters.

Will confirmed pleasure & acceptance of this project
Via phone conversation
dated 2/9/72

UNIVERSITY OF CALIFORNIA, DAVIS

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SANTA BARBARA • SANTA CRUZ

NATURAL FIELD STATIONS
DIVISION OF AGRICULTURAL SCIENCES

DAVIS, CALIFORNIA 95616

January 3, 1972

Mr. Kenneth B. Zamvil
412 F Street
Davis, California 95616

Dear Mr. Zamvil:

I have your letter of December 20, 1971 with enclosures regarding your proposed study at the Sierra Foothill Range Field Station.

By copy of this letter I am informing Mr. Joseph P. Guild of your request for making the study and of your desire to occupy periodically the old living quarters at the station. I have discussed this with Mr. Guild and he has assured me that there would be no problem as long as you understand that you do not have exclusive use of these facilities. They are to be available to other students and staff whose work makes it necessary or convenient to utilize these quarters while working at the station.

I cannot assure you that Mr. Guild can offer you part-time employment. I suggest you file with him an "Application for Employment" (copy enclosed) at your earliest convenience. Actual employment will be dependent on your qualifications, his need for part-time labor and his budgetary limitations.

Sincerely,

James L. Myler
Director

JLM:tn

cc: J. P. Guild

Enclosure

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Sincerely,

A handwritten signature in dark ink, appearing to read "J L Myler", is written over the typed name.

James L. Myler
Director

JLM:tn

cc: ✓ J. P. Guild

Enclosure

NORTHERN CALIFORNIA RINGTAIL CAT STUDY 1972

NEED

The ringtail cat (Bassariscus astutus) is certainly not a rare or even uncommon, species throughout most of its range in the western states. However, its status in California is uncertain and it may well be both rare and endangered here. Also referred to as the civet cat, miner's cat and cacomistle, the seldomly seen ringtail is best known for its strictly nocturnal activities and arboreal tendencies. The ringtail is not really a cat, but a member of the raccoon family, the Procyonidae. It is a renowned mouser and rodent predator, but is also known to eat fruits, berries, honey and chocolate, as well as a variety of aquatic organisms. Its primary food sources are thought to be mice, squirrels, and birds; but the ringtail is also known to eat apples, peaches, pears and many garden vegetables as well as lizards, grasshoppers and native fruits of different parts of its range. Regarded as highly intelligent, the ringtail is inquisitive and well known for its great adaptability to human presence and captivity. It is reputed to make a good housepet. Other than this, little is known about the ringtail's territoriality, mating behavior, sociality, reproductive physiology, and environmental tolerances. In California the ringtail inhabits the Upper Sonoran Zone below 5500 feet, chiefly on the western slopes of the Sierras. It is not thought

to be adapted to cold weather, but has been known to survive even the severest New England winters when released from captivity. (R.L. Edwards, **May**, 1955, Journal of Mammology)

The ringtail has never been known to be plentiful anywhere in California and concern for its safety and protection has been expressed at least since 1925. Never pursued wantonly for its fur, it has often been the innocent victim of trappers looking for other furs as well as victims of both rodent and predator control methods. Walter Fry (Calif. Fish and Game 1926) observed that these "animals in the neighborhood of Sequoia National **Park** are not half as numerous as they were ten years ago," and that "outside the parks these pretty animals are being depleted from year to year by the ever increasing numbers of fur trappers." The trapping has since been stopped for the most part, but use of poisons and traps for other animals as well as man's encroachment upon the ringtail's California range have undoubtedly been **factors inimical to** ringtail populations in California.

A basic tool necessary for evaluating the ringtail's current status in California is the determination of its **population dynamics** (density, birth and death rates, **turnover rates and distribution**). Through quantitative evaluation of ringtail population dynamics further insight can be gained concerning the **current status** of the ringtail in California and its future here. Hopefully, the results of this study will assist legislative processes in determining whether an animal is rare or endangered, not only as an entire species, but according to geographic locale over parts of an animal's range.

OBJECTIVES

The specific objectives of this study are to attempt to:

- 1) Develop field techniques for the live, unharmed capture, marking and tracking of ringtail cats.
- 2) To get a better characterization of ringtail habitat in California; reproductive behavior and denning activity, probably through telemetry.
- 3) Perform census on the population using trap, mark and recapture information and Lincoln (Peterson) or Jolly's index for population estimation.
- 4) Determine density and distribution of ringtails and evaluate animal's current status.
- 5) Monitor movements and further observe reproductive behavior, home range, territoriality, nocturnal movements, family rearing, survivability and subsequent redistribution of young following weaning.
- 6) To utilize information gained in a constructive manner encouraging legislation to acknowledge a species to be rare or endangered within a part or parts of its range.

METHODS

- 1) live-trapping with Have-a-Heart or Tomahawk live traps. 9"x9"x32" double entrance live traps.
- 2) Eartag mark, release and recapture (as well as implantation of telemetry devices and subsequent monitoring).
- 3) Utilization of mark and recapture data in above mentioned indices to estimate population size, density and distribution.

LOCATION

Studies to be conducted at the University of California, Davis Agricultural Experiment Station at Brown's Valley near Marysville, California in the Sierra foothills. This is a range consisting of approximately 6000 acres bordering the Yuba River and accommodating a confirmed population of Bassariscus. Further correlating studies are planned at the University of California, Berkeley Arbovirus Field Station in Chico, California. Arrangements and accommodations at both facilities have been made.

FIELD WORK

- 1) Trap and tag ringtails in study area.
- 2) Record each ringtail by:
 - a. approximate age
 - b. sex
 - c. weight
 - d. general condition (health, ectoparasites)
 - e. location of capture
 - f. date of capture
 - g. reproductive status
- 3) Tag with permanent marker to identify.
- 4) Use telemetry equipment, attach transmitter and monitor activity and movements. If attached to pregnant female, track from birth to weaning of young and mark young before they leave the nest.
- 5) Recapture to retrieve transmitters when necessary.
- 6) Record weather and correlate with data (relate to behavior).

OFFICE WORK

- 1) Compile field notes.
- 2) Summarize data.
- 3) Write completion report.

ESTIMATED MAN DAYS: 150

WORK ASSIGNED TO:

Field study--Ken Zamvil, graduate student, Department of Environmental Studies, University of California, Davis.

Supervision Paul Howard, National Audobon Society

Phil Schaeffer, ~~coordinator~~, National Audobon Society

Consulting Specialists: Dr. Robert L. Rudd, U.C. Davis, Department of Zoology.

Dr. Robert G. Schwab, U.C. Davis, Department of Physiology.

Mike Wright M.S., U.C. Berkeley Arbovirus Field Station.

Dr. Robert Washino, U.C. Davis, Department of Entomology.

OUTPUT:

Completion reports due September 30, 1972

COSTS:

See attached budget sheets and notes.

ESTIMATED BUDGET: FEBRUARY 1 TO SEPTEMBER 30, 1972

1. Mileage 1 vehicle \$960.00
minimum 1000 mi./mo. at 12¢/mi.

2. Supplies:

a. traps (10) and bait	200
b. handling equipment (ie. gloves)	20
c. ear tags (#1 monel) and pliers	15
d. film-developing and prints	40
e. telemetry pack (senders and receivers) (commercial cost)	5000
f. xeroxing	
g. correspondence (stamps, stationery, postcards)	5
h. miscellaneous (books, paper, notebooks, pencils, string, marking tape, etc)	100
i. living stipend (room, board, educ. fees) or wage	1200
j. miscellaneous electronic equipment	500
k. telephone communications	<u>80</u>

APPROXIMATE TOTALS----- \$8120

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2. Supplies

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b. handling equipment (ie. gloves) 20

c. ear tags (#1 monel) and pliers 15

d. film, developing, and prints 40

e. xeroxing

f. correspondence (stamps, stationery, postcards) 5.

g. miscellaneous (books, paper, string, notebooks, marking tape, pencils etc.) 100

h. telephone communications 80

APPROXIMATE TOTALS \$1420*

*not including a seasonal aid wage of \$2.50/hr or alternatively not including university overhead and living expenses (room and board) totaling \$1200 or telemetry equipment totaling approx. \$5500. Study to include mark-recapture, population size, density, distribution estimates and current status evaluations as rare or endangered in California. This, thus omits the telemetric study which was to be part of the overall study.

January 16, 1972

Mr. Joseph P. Guild
University of California
Sierra Foothill Field Station
Brown's Valley
Marysville, California

636 Radcliffe Dr.
Davis, California 95616

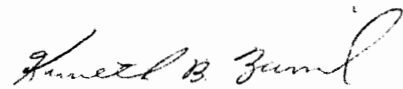
Dear Mr. Guild:

I have requested to use the field station facilities for my field research project concerning the Ringtail Cat. I have been informed by Mr. J.L. Myler that this has met with your approval providing I realize that I may not be **the only** student using the facilities. As I think you are aware, I hope to be carrying out the bulk of my research from the beginning of February throughout October of this year. At this time I am in the process of obtaining the necessary equipment and hopefully, some additional financial support. I have received some assistance through the school, however, the money I am to receive has to come through the federally subsidized "work study" program. I am scheduled to receive \$600.00 through this program, however the only stipulation is that I obtain a university sponsored job.

You will note, I am enclosing a completed job application for the field station. I am hoping that perhaps you have a work crew or other maintenance position that is yet unfilled, and still within your budgetary limitations, which I might qualify for. As I understand, under this program, the sponsoring department need only provide 20% of the student's wage and the federal government will provide the rest. As I am scheduled to receive \$300.00 each for spring and winter quarters of this year, I am hoping that you might have some vacant position which I might fill.

I am planning a trip to the field station in the very near future so that I may meet with you and discuss my project, job prospects and accommodations. I have been advised to inquire whether there might be station traps which would be available to me.

Thank you very much,


Kenneth B. Zamvil
Department of Environmental Studies
Graduate Group in Ecology
University of California, Davis