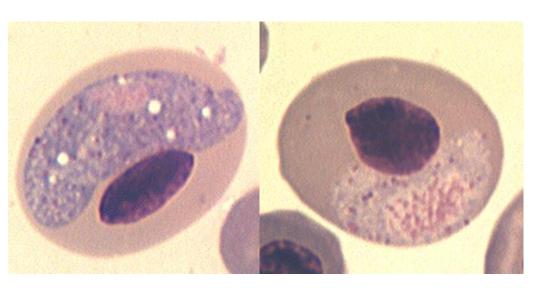
Allison Neal

- PhD student
 - UVM Department of Biology
 - Just starting 5th year





- GRFP
 - Applied at beginning of second year
 - Just starting 3rd year on grant



Study sex ratio of lizard malaria parasite Plasmodium mexicanum



Western Fence Lizard (Sceloporus occidentalis)



Sand Flies (Lutzomyia spp.)



Career Goal: Professor





Teaching Research

Previous Research Experience





- Senior Honors Thesis
 - 2 ½ weeks fieldwork
 - ~ 10 months lab work

- 1 year graduate research
 - > 3 months fieldwork
 - ~ 9 months lab work

Getting Started - Resources

Descriptions of each essay:

https://www.fldemo.nsf.gov/NSFHelp/flashhelp/fastlane/FastLane_Help/3_prepare_application.htm

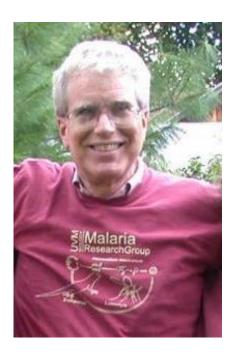
Questions to answer in essays:

http://www.nsfgrfp.org/how_to_apply/application_materials

Broader Impacts and Intellectual Merit:

http://www.nsfgrfp.org/how_to_apply/review_criteria

Advisor: Dr. Joseph Schall



Getting Started - Writing

1. Brainstorm

- Answer questions
- Address all areas of essay description
- What makes you unique?
- Don't forget Intellectual Merit and Broader Impacts!

2. Outline

How do all these ideas fit together?

3. Write

- Don't be too technical
- Hardest part? Only 2 pages per essay!

Why are you fascinated by your research area?

Allian F. Naci

Alten Library

Bully Machinging experience are now. Those on experience the other Mills artifolioextends, and I was remarked to confirm each an experience while in an entiregral settingues. Annalysis of Print and an earlied Europeinal Republican. Desired the size planning in the ahigh actual budge teacher and had no recomm meanth, gentless actual, or getting my man became fascinated by parasites..." and along and branches the three was about the forcing and area. infections that there were earlies. As It is, I get, an absence would have it, the PC of the lists, Dr. hands bidall, non-after materal finding for a resist in exaction battery question. When I taked approached the fielded above processing research on tender, he proposed I lively at partiers was into, and knowing I was already received about the rate problem. Expelled the authorized a competition upware object from the Colorecty to propose that make and more the following property and the concerned are made even. I contribute a transferred the are not a selfmonth proper recognitional collections in a limite House, Think, I was now convinced a security series was to the Debug and Debugs whether we have seen but a world tool to seem trapped at discovering to the best of an extension and which the continue on the PLD, program.

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"The study of sex ratios intrigues me for a number of reasons."

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less basing receptor in the labitation the same members, and reject being their consultaneous. I have the becoming their and provide the same their consultaneous temperature of the consultaneous temperature con

Examing the MC Following would allow some have a very different gradual experience. Burges of 1.4 in an experience to temperature and the left provider of temperature of temperature and temperature of temperature of

Executing the following-resolution give one many Excitating to an execute articles. Last resource, I conditional an experiment of a distribution in Northern California, day benefits altering the improper of the following the property of the following the state of the following the following the property of the following the property of the following the state of the following t

Comparing the outcome to be built on internagen, convergining the philosophian and only becomes an extended to a continuous and only have proving the Picho degree it as been beinging and, probably as a result. Incomessor high substrates, I have manifested high grade-obscuring any educational cores. I washed a finite substrated in the manifested in the substrated and the substrated of the substrated in the major behavior, and grade-obscuring the first facility of the first incompatible stranges and a demand of the first party behavior and probably almost finite and the first and the f

What personal and individual strengths do you have that make you a qualified applicant?

Albert T. Nach Personal Regions

Bully Machinging experience are now. Those on experience the other Mills artifoliopolarity and hear medical in confessional as experience while in an enterpolarity repre-Annalysis of Print and an earlied Europeinal Republican. Desired the size planning in the ahigh actual budge teacher and had an extraorie meanth, graduate actual, or getting any manest of the day the appeal grain and a time conference benefit as an a tender. During the property i became an functioned by parallels from the fundament of the friends, they become one along from the inplicated communities. The automoting complexity and directly of present life quality and the ways parameter determined with their bests, angularly with their importance to become and reductionality experience exceptions; material trained allowed any perceptions of the world. In the Membry writer of the source, we mentigated the basing texts of the basis includes paracle Particular appropriate and household also than your o'co man from a marketing in infection fraction over eater. As his, but an status would have it the K of itelah. Dehands bidall, non-after materal finding for a resist in exaction battery question. When I taked approached the fielded above processing research in tender, he proposed I link at parameter over into, and knowing I was already received about the rate problem. Expelled the authorized a compatible species algorithms for Calabridg to propose the eart, and marries following Also state and the property for motive coal. I code finite an investigation of the me with the manipupos, recognitaring pullerinated in a finite Honory Thank, I was now convinced a common to contact was to she finders and the reproductive on any later would led to some important discovering to the best of an extension and which the continue on the PLD, program.

The public of an opine indigens on the a contact of reason. In present, I find questions in evolutionary findings shallowing and professed. For example, Why are those generally such and reporting of sale and health in our might properly and with goal proportion displayed. Man postorolds has postorold discharge description, sometimes has been religiously the Despite (Temperature Common the event finding of evalphoney frieings persons description populations are a result of a complicating of events. both secret and evaluate hard demand from descript manually made of an action in making. repulse intensis nor is that it requires no much integration through. Technologies are entirement pulling together knowledge of all reports of the persons of transportations around minima deserve, and deserve training transactions beings, and rate for deservations should be seen from to high extends I can remember here good to fell when have safetying to cultivated in perfections. Birthold may consequent belonged to a support of leading and other Record and have become winds polynom, but I will be estallinging parties become they

Though the enterior the execute has been transferred by it has not expliced my drawn to brack, it has because made no realization incompression for investor address his course of control bit control, then because in privacy francisis, in discussion of the activities maked until have brought binking after the war for you prelimiting to remark has I be to present this is not treating and more operations to get involved in more of. I was trethis year emission bearing a dealers in the department model to set any meeting account, meeting Embyloid Penaltiding life by water year ill terrorated and more than earlier of majors. morting in our followings, he is analogouthous, I reduced a work worth product and mortinant It is program to be worked in the fall. And produce student, I now work with the embryouthains. One of these electric is a Michigan activity planning on, projecting this measure who has continue to graduate programs with a focus to renoting parameters. Two other contents are monitoring the Monte College with the markets were as exercise for the undergodisces asset to the lab. I

less backgroupped in the lithings for some members, and only being that consultrantes. I have bed from excitore the Breath Experience bed on the Chinary maked graduate without to exercise to Collisions, bearing and according a total of time and operations in the held I were one graduate featuring materials (CEA) for reconstructed adverge to expens my materials to the conremark through will their well like and lab projects. I give reduction at an area formuly for where we go in Virginia is added about, where I be to head added about the engineers ed-almost the companion with a state administra-

Receiving the NOT Extraoring would allow more have a very different graduate regardence. Making a fill it is not department to the communiting, as the Political Reposition of an experient to be more if we expect affect the fact to the fact to well as a beningle if com - traction. Resolving the Policestin would also recover Cardellin in traction to implies differed terring of the and each with differed agreement, each as toward from these with the smaller should dealers or requesting to work with regulations dealers. It would also after the many first to work with the auditors always in our left to expect they are increase as thank any possible there had respectation. I was imagine account contribute present and much large that \$1700 converted from the opinion principle Problems, since I become province religiousing with first actions, repeated to serve to believing difficult file expenses. My facely being result to a deep colored the importance of tending as ellipsed to the continuous temporary afters, and with the emilian making with purpor regions arread purpose in the finite rate.

Benefiting the following remain also give the many facilities in my manufactualities Last receives. Incombated as experience of a distribution in Northern Citizents that involved referring blanch with metals and constrong the programme of the infection. I should salling upequitions to make an elementaries were result for spring and should not believe began again to the Mr. The study was a more study are more facilities a great study of they from the marginal t actioned, but it would be cheer more producted bad I have also be remained for the past the collisioner began in each Necessian. He follow remarks place will be gain different till. configures more finally exhected for both field and behaviory projects. However of my lone of leading, but not writing to be a full beautiful. Include found it fractions the new manners when most to disligant for my marking representations. Associately the Religious Institute of man that has printing juries I specifie has conscioutly in it sould brink by true come by giring on more flexibility arrived on pile to promptlet oversald higher quality tenents in a distancement of time and focus or directoring the over tending with with the

"I am hard working..." "I have maintained high "I have submitted two papers..."

Broader Impacts and Intellectual Merit

Affice E Neil Ferral Egiterat

Bully Machinging experience are now. Those on experience the other Mills artifolioextends and I was remarked to content such as experience while to an enterpretate respons-Annalysis of Print and an earlied Europeinal Republican. Desired the size planning in the ahigh school budge teacher and had no recomm meanth, gentless actual, or getting my man and all that there has regard goods and a few conference benefit and not a relation. During the consent i basers as facilitated to paradiac for to fundamental for fitting, they become one of my female inplicated communities. The advantage complexity and alteredity of present falls realize and the warm parameter interest, with their hours, angularly with their immediator to become to merican of the stocker, we meaning shall the finding final of the family includes parameter Particular appropriate and household also than your o'co man from a marketing in infection fraction over eater. As his, but an status would have it the K of itelah. Dehands bidall, non-ples materal facility for a relief is examine that one question. When I taked approached the Soliati attent percentigrossocieties tentals, he proposed I finds at paractic mainto, and accounty I was already national about the many problem. Expelled the medical control of compatible species algorithms to Calcardy to propose the early and over the following manager and the companied are made uses. I conference as the extension of the use with a M.

"The question of sex ratio illustrates the overall finding of evolutionary biology; patterns observed in populations are a result of a complex array of events..."

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"I... encourage students to get involved in research..."
"I have served as a mentor..."

Alter Library

"I volunteer at an area... middle school"

Exercise the NOT Extracting world after more hare a real different graduate.

"Receiving the NSF Fellowship would allow me to [invest] more time with middle school students..."

being well in a despective of the importance of healing as allowed blocker-senters on beings, where, and well-descenting resident plant prompts received a very large and resident in the framework. Excellent prompts are appropriately as a prompt of the framework of the framewor

Comparing this continues that but our territories are consistent with the formation of continues and why it was proming the Pauli congene it or bent continue, and, probably as a constitution and why it is the probably as a constitution of the pauli colories, it has maintained by public bent against a public bent and probable if the Pauli for being the continues and the stranger in the constitution of the public best and a public best ACM between place is that the consistent and the stranger in the constitution of the public best and the pub

Albert F. Nach Berned Between

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How I became interested in malaria sex ratios

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Why evolutionary questions interest me-broader context

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Career goals and related

experience

Affine Library Second Statement

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How receiving GRFP would

enhance my graduate experience

Why I am the right candidate to fund!

Previous Research

Broader Impacts and Intellectual Merit

Pervious Sensorsh

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"...[research] has been conducted by the Schall lab at this site since 1978"

greate discretily of an inferior had a significant effect on its generacy or a sole or product by LMC. My develope the experimental inferiors derived to drouge in our returned or for

"... we ran a short research program with local middle and high school

students..."

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Altino L. Paul Persona Research

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"I mentored three undergraduates...

regions product as the control of th

"Two of these undergraduates joined me in [the field]..."
"I worked with undergraduates to develop and carry out their own

studies..."

"...developing research programs appropriate for different ages..."

"...expanded our knowledge of Plasmodium gametocyte biology and sex ratio theory."

"...plan to create a website..."

Previous Research

Allinos E Naci revisos Remork Allian L.Ned

Research conducted in undergraduate course

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Undergraduate Honors Thesis

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Summer before starting graduate program (2009)

Research project with middle school students

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First year as graduate student: lab work (2009- 2010)

Summer fieldwork (2010): my research and that of my undergraduates

What I've learned and how I've communicated findings

My nublications

personne biologi. Dealer review at Proceedings of the Asyal Tening of Lordon E.

Proposed Plan of Research

Expressed Plant of Research.

Consequence on take of the last flexibility monety. Necessition mechanics

Title and Keywords

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Intellectual Merit

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Origin of my interest

4 specific areas of research

with hypotheses and

preliminary data (if available)

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General Methods

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Broader Impacts

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Benefits of Fellowship

Time and flexibility!

- Extended field season
- Opportunity to visit other labs/researchers
- Chance to develop skills, participate in workshops, etc.

