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The Cedar Point Experience, 40 years of field based, experiential learning

Jon Garbisch

University of Nebraska-Lincoln, jgarbisch2@unl.edu

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Abstract for DBER Group Discussion on 2014-11-20

Presenter(s), Department(s):

Jon Garbisch

Associate Director

Cedar Point Biological Station

University of Nebraska, Lincoln

Title:

The Cedar Point Experience, 40 years of field based, experiential learning.

Abstract:

The Cedar Point Experience was born in the summer of 1975. At the urging of several biology faculty UNL leased the Goodall Cedar Point Girlscout Camp and offered a broad range of field based courses exploiting the local environment as their classroom. These instructors also had a strong interest in the area as a base for their own research. Today the UNL Cedar Point Biological Station with a few additional buildings can support around 100 people with full service dining, housing, classroom and lab space.

The instructional model has remained unchanged for the past 40 years. Field based or place based courses offered as a focused block, residential learning experience. A traditional semesters worth of material covered in only a few weeks with the focus on learning through collecting and manipulating materials that are in their natural context. Limited lecture time and maximum field and lab time. CPBS has a solid tradition of making you tired, cold or very sweaty, wet and muddy. The separation of human from the natural environment is kept to a minimum and personal interaction with fellow students and the instructors and the resident research community is maximized. The Cedar Point Experience creates life long personal bonds and personal shifts in world view.

The ecologists who have taught at CPBS the past 40 years pretty much take the Cedar Point Experience as a normal field station effect; "this is why we teach courses in the field." What they have not typically done is formally assess the experience relative to the traditional lecture based courses on main campus. We do have a collection of statements from decades of student surveys:

...the best class I took in college!

Getting your hands dirty and actually doing biology is much more educational than lecture classes.

It was one of the top 3 life experiences I've had.

Great classes and instructors.

On a scale from 1-10, I rate it a 100.

I liked the field experience where you can see, touch, breathe, and live the organisms, their ecology, etc.

I liked the hands-on work and the close interactions we were able to have with the instructors.

I took 16 credit hours, best portion of my undergraduate education.

I really enjoyed this experience (one of my best college experiences). I liked the closeness of students and faculty.

The experience is great. You get to know faculty and students on a personal basis & you really learn the material well.

CPBS was awesome

The best teacher that I've had all throughout college. This 3-week course was a great biological experience. It was fun!

Cedar point = great experience

I enjoyed everything about Cedar Point. It is a great place to make friends and learn.

I had a really good time and am glad I chose to come here.

I loved Cedar Point!

Currently, several courses are taught at both CPBS and the UNL Campus; such as LIFE 121, BIOS 207 (Evolution and Ecology), NRES 433, NRES 220, BIOS 475 and there is an opportunity here to go beyond anecdotal student and instructor statements. To ask if students really do retain 2 or 3 times the knowledge in a field based course. Many students say they learned a lot more than they usually expect to. Is there a world view shift from the educational experience? There are also 40 years of alumni to interview. You can ask what did you learn in this course not 3 months after the final but 5, 10 or 20 years later. The CPBS alumni always have a lot to say about their Cedar Point Experience. Students who took Limnology or Ornithology in 1975 can easily list many of their fellow undergraduates and much of the course content as if it were just last month.



Cedar Point Biological Station

CEDARPOINT.UNL.EDU

Jon Garbisch, associate director



Cedar Point Biological Station

Ogallala, NE

University of Nebraska-Lincoln
School of Biological Sciences

Director, Jean Knops, rotating position with 30% release time.

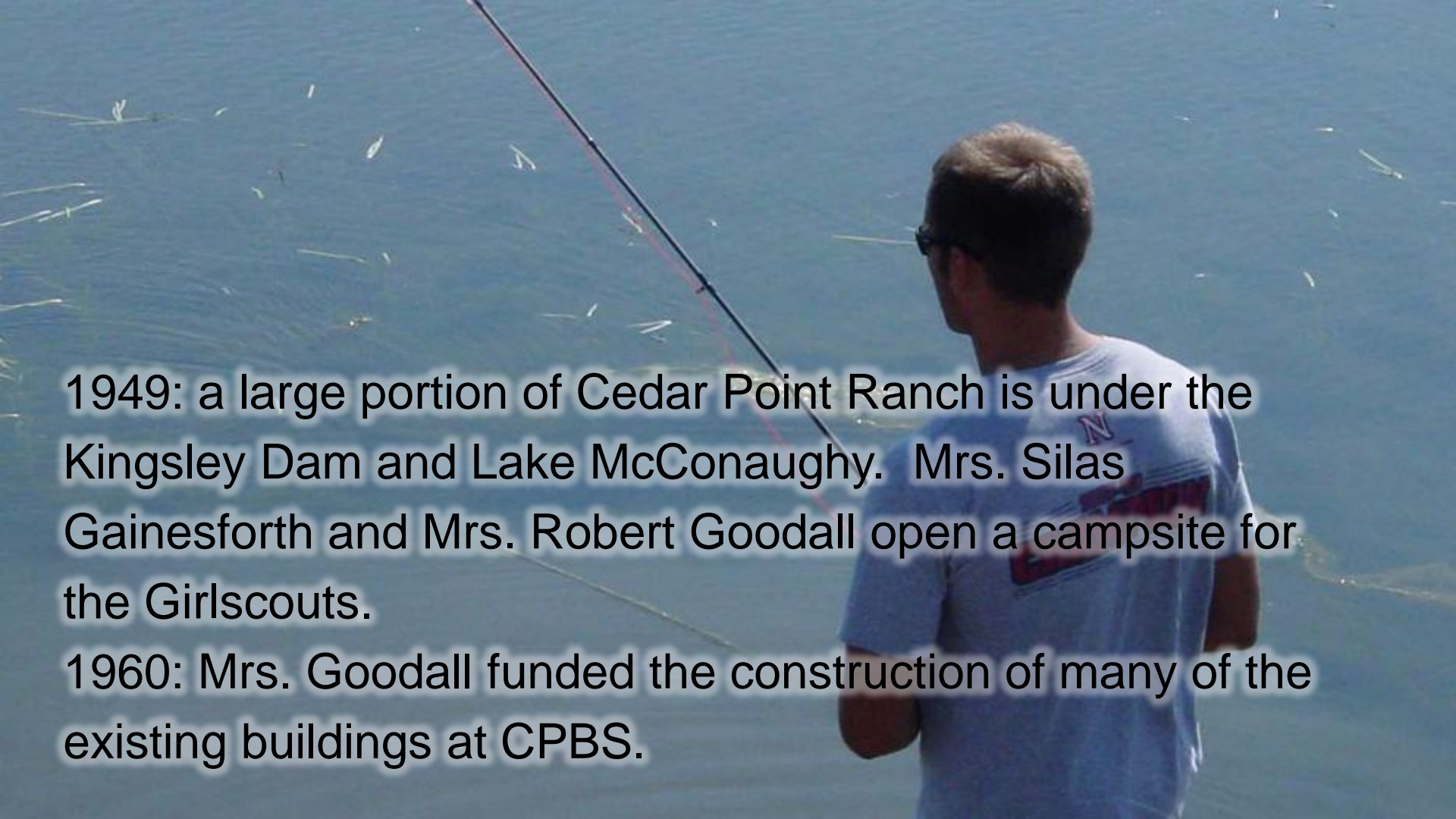
My Biases (with no claim to being reasonable):

- Field based instruction is always better.
- A lousy day in the field is always better than a good day inside.
- STEAM is cool and science without art is just dull.
- Geology is at the root of anything you can call STEAM.
- CPBS is under utilized and an ideal incubator for creative concepts






1912: Silas P. Gainesforth, purchased Cedar Point Ranch.
Provided dental services for the Ogallala area.

A man with short brown hair and sunglasses is seen from the back, wearing a white t-shirt with a red and blue logo. He is holding a fishing rod and looking out over a large body of blue water with some white debris floating on the surface. The background is a clear blue sky.

1949: a large portion of Cedar Point Ranch is under the Kingsley Dam and Lake McConaughy. Mrs. Silas Gainesforth and Mrs. Robert Goodall open a campsite for the Girlscouts.

1960: Mrs. Goodall funded the construction of many of the existing buildings at CPBS.

A scenic view of a rocky shoreline. In the foreground, a white motorboat is on the water. The middle ground shows a steep, rocky cliff with sparse vegetation. A few people are visible on the cliffside. The background features a grassy hill under a blue sky with scattered clouds.

1974: Dr. Gary Hergenrader, leading a UNL Limnology field trip, noted that the Girlscout Camp was available for lease.

1975: field biology courses are offered and the “Cedar Point Experience” begins.

What is the Cedar Point Experience ?

Forty years of field based,
experiential learning

Unique opportunity for YOU to
experience biology in the field

Now offering field based art courses

ONLY 18 students in each course
get to know your instructor



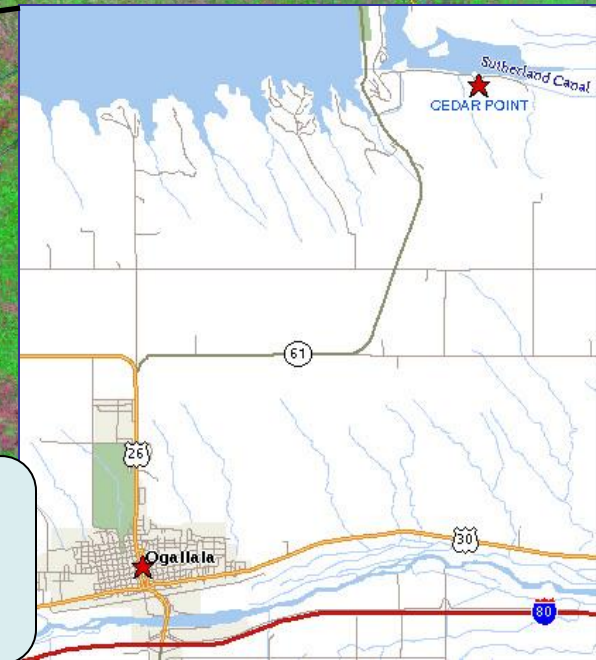
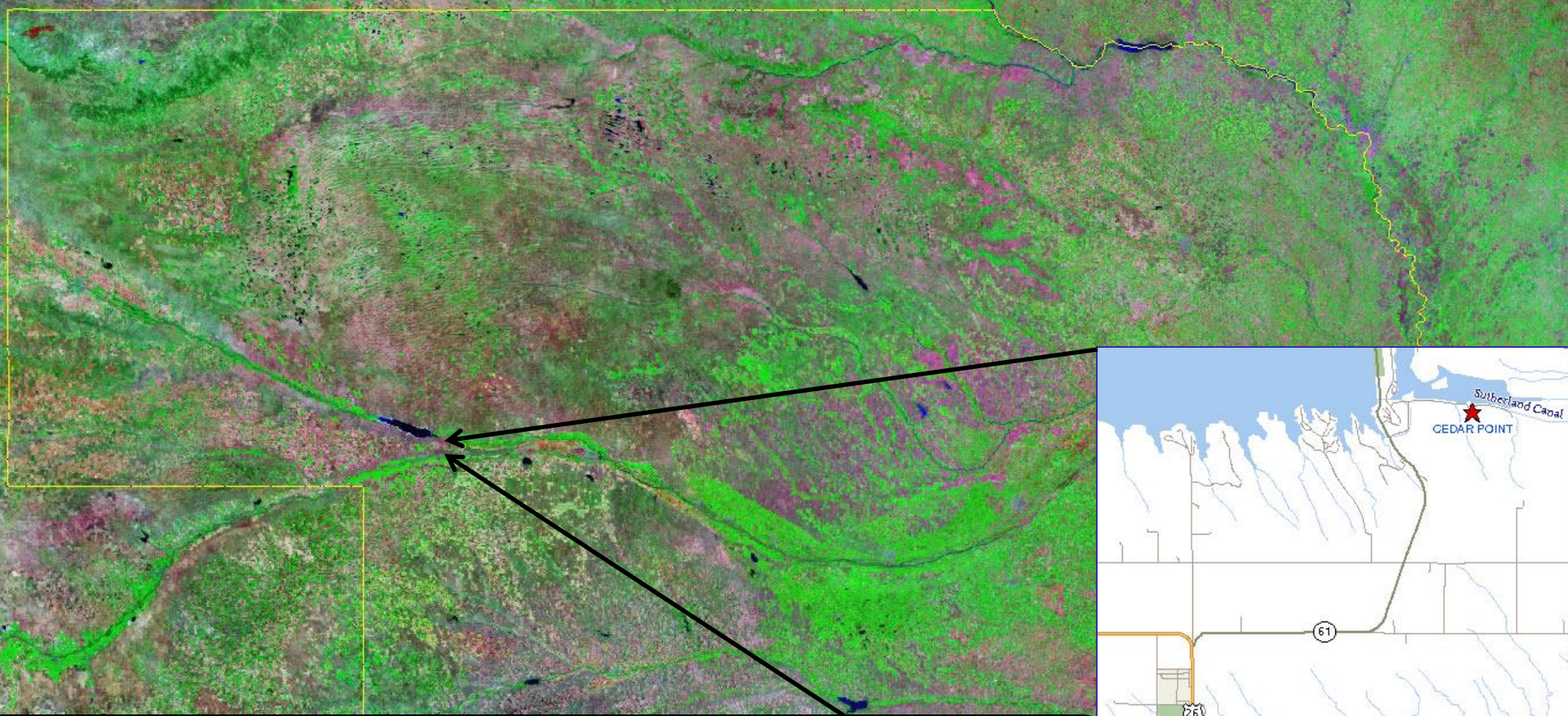
Do Biology, don't just study it!







Where is
Cedar Point Biological Station?



Where is Cedar Point biological Station?



Course offerings 2015

- **1st session, 17 May - 5 June 2015**

- BIOS 475 / 875 Ornithology, John Faaborg
- LIFE 121 Fundamentals of Biology II, William Glider - ACE4

- **2nd session, 7 - 26 June 2015**

- BIOS 468 / 868 Field Animal Behavior, instructor TBA - ACE10
- BIOS 422 / 822 Comparative Physiology, Gwen Bachman – ACE10
- ARTP 183 Eco-printing into Bookmaking, Karen Kunc – ACE7

*Note this is **June 7-19** and will be 3 credits. The Dept. of Art and Art History is listing this course.*

- **3rd session, 28 June - 17 July 2015**

- BIOS 452 / 852 Field Epidemiology, Devin Nickol – ACE10
- LIFE 121 Fundamentals of Biology II, William Glider - ACE4

- **4th session 19 July - 7 August 2015**

- BIOS 487 / 887 Field Parasitology, Scott Gardner – ACE10
- BIOS 207 Ecology and Evolution, John DeLong

<http://cedarpoint.unl.edu>

What's New at CPBS?

- ARTP 183 Eco-printing into Bookmaking
- Instructor Karen Kunc
- Natural materials printing processes, that all reference nature
- *(PHOT161 was a great success last year)*
- 2nd session: June 7 to 19
- 3 credits – only 2 weeks
- Counts toward an Art minor
- An **ACE 7** course



ART
AT CEDAR POINT



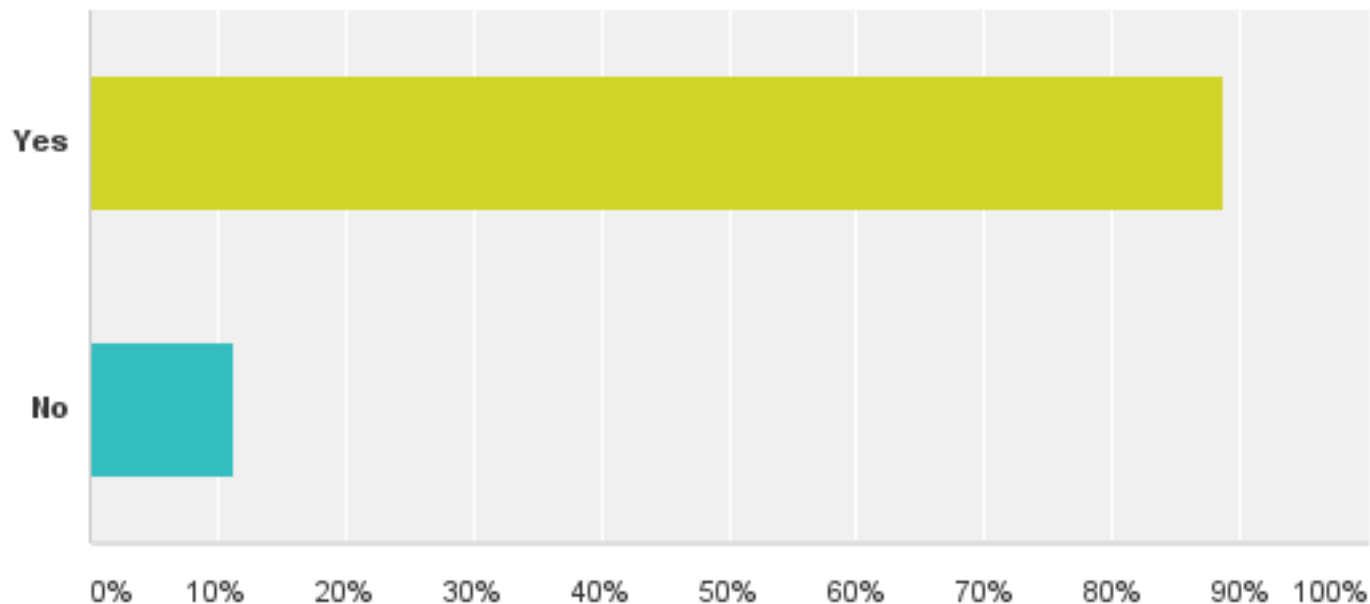
ARTP 183 Eco-printing into Bookmaking

- 2 weeks
- 3 credits
- \$460 for room & board
- \$50 course fee

go.unl.edu/artatcedarpoint

Q2 Does your FSML collaborate with artists, or have an art or humanities program?

Answered: 44 Skipped: 0



- <http://fsml-art.blogspot.com>

“some field stations have demonstrated the capability to encourage convergence not only of the life and physical sciences, but also of the social sciences and the arts and humanities.” NAS 2014

- <http://www.ecologicalreflections.com>

Forested canyon, prairie and the south shore of Lake Ogallala;
just east of Lake McConaughy.





Diversity of habitats means a great diversity of flora and fauna

**An Alternative to Lecture courses on main campus.
Take BIOS 207 (Evolution and Ecology) as a lab
course – learn each core concept in the field
through field observation and projects**





CPBS provides a focused LEARNING environment get to know the other students the Instructor and the TA. Focus = better grade, more discussion, reference letters, life long friends, a better way to learn EVERYTHING







CPBS courses are all field based experiential classes





An alternative to campus based lecture style courses; 4 credits DONE in 3 weeks, courses are small most less than 18 students.









Cost: Tuition, student fees are very reduced, food and housing not trivial but CPBS usually covers over 40 students with scholarships.

2015 Room and Board

Apply for a scholarship!



Room and Board for
3 wks \$700,
(except PHOT161 \$460)

\$365 for 3 wks for
commuters who
will not need
housing
(\$245 2wks commuter)



How to Enroll

- Early November we announce summer courses
- Complete On-line application form ...AND pay the room & board fee (\$700 to UNL for most courses) @ 101B Manter
- In March we will give you a permission code for MyRed and you can complete enrollment
- You must pay for room and board to complete enrollment



Research on Cliff Swallows at Cedar Point

- cost/benefit of living in colonies, virus transmission
- 40 years at Cedar Point
- Largest mark/recapture study of any vertebrate species in the world



Dr. Charles Brown,
University of Tulsa



Research on parasites at Cedar Point

John Janovy Jr. is a world renowned parasitologist who has trained many other parasitologists at Cedar Point

Scott Gardner, a UNL parasitologist who looks at the phylogenetic relationship between mammals and their parasites





Research on reptiles at Cedar Point

- Two projects on Painted and Ornate box turtles
- Focusing on energy use, reproduction, activity patterns, population densities, survival
- Larkin Powell
- Gwen Bachman





Small class size – get to know your fellow students and your instructors





Course material is collected daily with a full ecological context

Small class size – get to know your fellow students and your instructors



Outstanding instructors who are all about field based education



Field or Place based instruction

- For CPBS we have:
 - Decades of student surveys
 - Many alumni that are accessible
 - Literature and research on education at Field Stations and Marine Labs (FSMLs)
 - Literature on field based courses in general



http://www.nap.edu/catalog.php?record_id=18806



Enhancing the Value and Sustainability
of Field Stations and Marine
Laboratories in the 21st Century

ISBN 978-0-309-30534-1

National Academy of Science,
2014

BIOS 99: biology exit survey:

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and....

Among FSML groupies this is the student experience in the field and it is a given that field based courses are always better.

- Partnered Internship programs, invasive species, endangered species
- YNS: Young Nebraska Scientist
- Earth Science Institute
- Resident Artist Program
- Middle School Science Week
- UNL Extension and 4H
- Nebraska Master Naturalist
- Cedar Point Volunteer weekends
- ESU Workshops
- NPS Workshops
- HRTM and Eco-Tourism interns: sustainable food service
- Proposed --- SNR... Done-in-Three
- Proposed... Semester-in-the-West
- Proposed Sustainability Intern
- Connections to other field stations: via OBFS, or the Manter Lab

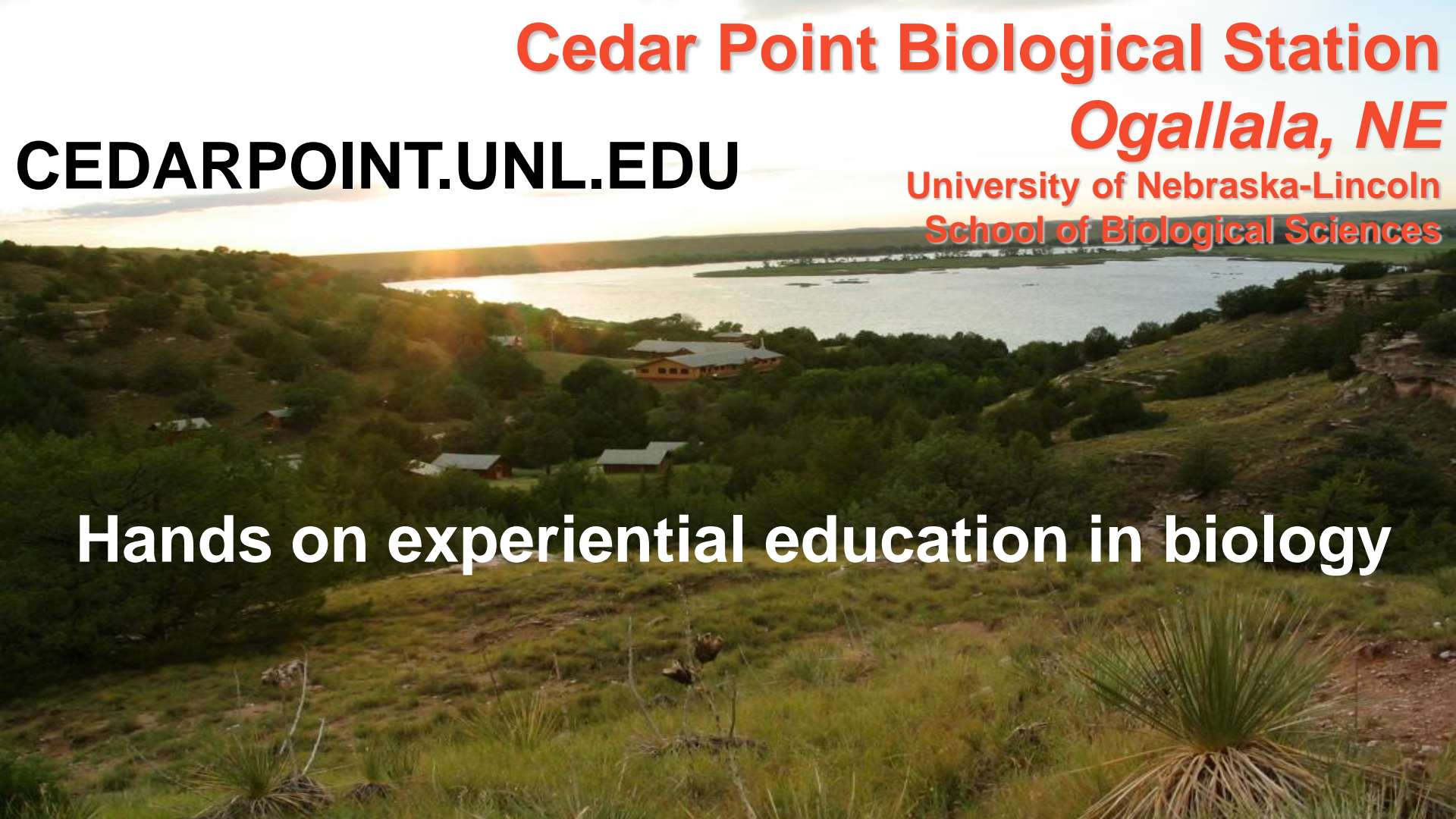
Cedar Point Biological Station

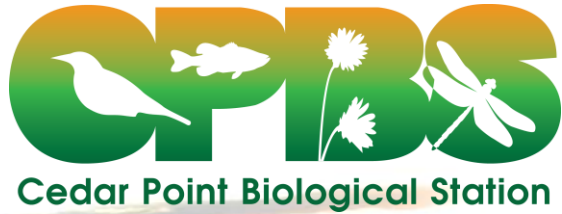
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Hands on experiential education in biology





<http://cedarpoint.unl.edu>

Join the Friends of CPBS

Ogallala, NE

UNL School of Biological Sciences



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