HONORS COLLEGE
THESIS FAIR
LIGHTNING TALKS

Friday May 17, 2024
A Fossil Dicranid Moss from the Late Cretaceous of Antarctica.

Zane Walker
“Baculites Hill”, Brandy Bay, James Ross Island, Antarctica
Branching stem with leaves and rhizoids
Leaves with simple D-shaped costa
Plicate leaves with recurved margins

Unistratose margin

Bistratose margin
Stems with and without central conducting strand
Possible rhizoidal gemmae

Asexual Propagules

*Syrrhopodon texanus*
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Central strand, simple D-shaped costa, bistratose margin suggests affinity with Dicranidae

(excerpt from Cole et al. 2021)
Conclusions

The new Antarctic fossil moss shows similarities to several moss families in the Dicranidae. Most similar to species in the Rhabdoweisiaceae, but doesn’t conform to any known genus.

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SERVICE AND CITIZENSHIP

Reflections on Oregon Women’s Service in World War II

Grace Knutsen
17 May 2024

Army Nurse Corps in training (Ruby Hills Collection, OHS)
INTRODUCTION:

- Service was an opportunity to enact new opportunities for citizenship
- Servicewomen faced mid-century gendered expectations
- “A woman's place” was in service to the United States and to servicemen
- Despite efforts of service organizations, women still faced judgement from society and servicemen

She's a WOW Poster
(Pritzker Military Museum and Library)
PERSONAL NARRATIVES

Hills and comrades boarding a plane to Paris
(Ruby Hills Collection, OHS)
46th General Hospital Army Nurse Corps pictured in 1943
(Ruby Hills Collection, OHS)

- 46th General Hospital
- 27-page memoir documenting her unit
- Emphasis on camaraderie
- Served in North Africa and France
- Treated 35,000 patients
We would like to think we truly ‘did our duty’, for the darkness of those times was real and evil was there.

—Ruby Hills
DOROTHY FENNER

- Member of the Women’s Army Corps
- Codebreaker and secretary
- Studied foods and nutrition

Dorothy Fenner pictured at Basic Training (Oregon State Sesquicentennial Oral History Project)
Well, here I am with a master’s degree in food and nutrition, and I’m well. Why don’t I give [my education]... to my country?

—Dorothy Fenner
MARGARET MCLEOD

- American Red Cross volunteer
- Server in a clubmobile and club director
- Served in Great Britain
- Awarded by the Red Cross

McLeod pictured with servicemen and other volunteers (Margaret McLeod Papers, OHS)
We were led to believe [...] that clubmobile girls had to be Glamour Girls...

...[The] Clubmobile took a terrific toll out of me – You have to be the Amazon type and on the young side and I am neither.

— Margaret McLeod
You have the satisfaction of having helped to make the lives of men in the US Forces less burdensome, and of having made a valuable contribution to the war effort.

—Chairman Basil O’Connor to McLeod
EXHIBITING WOMEN’S WARTIME SERVICE
Increasing Participant-Robot Interactivity of Benn-E Bot

Kristen Adamec
Mechanical Engineering, Computer Science
Mentor: Dr. Sarah Oman
Project Background

- MIME 2023/2024 Capstone Project
- Promotional Robot for the College of MIME
- **Goal:** Increase interest in the college through an interactive robot
Goal: Add another method of interactivity through speech

System Components:
- Mikroe Speakup Click Voice Recognition Unit
- Custom Audio Amplification PCB Board
- Custom Huffman Audio File Compression
Electrical System

- 8Ω Speaker
- 9V Battery
- Arduino Uno
- Mini Breadboard (PWR & GND Rails)
- Speakup Click Voice Recognition Unit
- Micro SD Card Reader
- Custom PCB
Huffman Code

```c
int get_next_symbol()
{
    if (get_next_bit() == 1) {
        if (get_next_bit() == 1) {
            if (get_next_bit() == 1) {
                if (get_next_bit() == 1) {
                    if (get_next_bit() == 1) {
                        if (get_next_bit() == 1) {
                            return 104; //11111111
                        }
                    }
                }
            }
        }
    }
    else {
        if (get_next_bit() == 1) {
            if (get_next_bit() == 1) {
                return 90; //11111101
            }
        }
    }
    if (get_next_bit() == 1) {
        if (get_next_bit() == 1) {
            return 76; //111111100
        }
    }
    return 166; //111111110
}
```
Thank you!

Questions?
Shadows and Spirits: Exploring How Drinking, Drunkenness, and Darkness Interact Using a Dark-Enhanced Startle Paradigm

Mia Tognoli, School of Psychological Science
Biology and Emotion of Addiction Via Reproducible Science (B.E.A.V.E.R.S) Lab

ADVISOR: Dr. Daniel Bradford
Assistant Professor, School of Psychological Science
Principal Investigator, B.E.A.V.E.R.S Lab
Drinkers report that stress reduction is an important motive for their alcohol use. (Bradford et al., 2013; Cooper, 1994; Schroder & Perrine, 2007).

Heavy drinkers may need to drink more to obtain rewarding alcohol SRD effects. (Bradford et al., 2013).
Atmospheric Assemblages: Groups of human and non-human forces that interact to co-create drinking occasions (McFarlane, 2011; Wilkinson, 2017)

“Being surrounded by other... drunken bodies, the darkness of the club.... leads to a transformation of experience, during which one... ‘becomes’ drunk through encounters in assemblages with other drunken bodies, the lighting, and the sonic environment” (Wilkinson, 2017; p.784).
Aims & Hypotheses

AIMS

1. Replicate and extend prior work linking alcohol’s stress-dampening to stressor uncertainty (Bradford et al., 2013; Kaye, Bradford, Magruder, G Curtin, 2017).

2. Contribute to understanding the effects of alcohol and atmosphere on neurobiological mechanisms to contribute to treatment development for unhealthy alcohol use.

HYPOTHESES

1. Startle potentiation will be observed in darkness relative to bright light.

2. Alcohol will decrease startle potentiation during dark conditions relative to bright conditions.
Design & Methods

Conditions:
- Bright
- Dim
- Dark

Alcohol
- No Alcohol

Data Collection:
- EEG
- EMG
- Self-Report

INFORMED CONSENT

NOTE: Participants in the alcohol condition received two doses of alcohol to produce a BAC of approximately 0.08 (The legal limit in Oregon)

1. Baseline Startle Assessment

2. Randomized Beverage Assignment
   - Individual Difference Questionnaires

3. Exposure To Light Conditions (90s. per condition)
   - BAC Recording #1
   - Anxiety Self-Report #1

4. Mid-Task Assessment
   - BAC Recording #2
   - Anxiety Self-Report #2

5. 2nd Exposure To Light Conditions (90s. per condition)

6. Post-Task Assessment

7. Debrief or Detox & Debrief
Results & Discussion

- Darkness significantly potentiated startle compared to other light conditions (p < .001)

- Alcohol significantly reduced dark-enhanced startle (DES) potentiation (p < .001)

- Overall, our results provide evidence for alcohol SRD, allowing us to draw insights about addiction etiology and treatment

NOTE: The current study is a subset of a larger, ongoing study.
Thank You!

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References


QUESTIONS?