



Five minutes in an elevator at 30000 feet over a mile-wide canyon

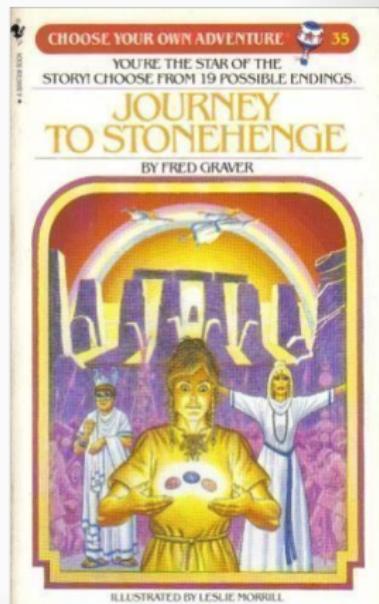
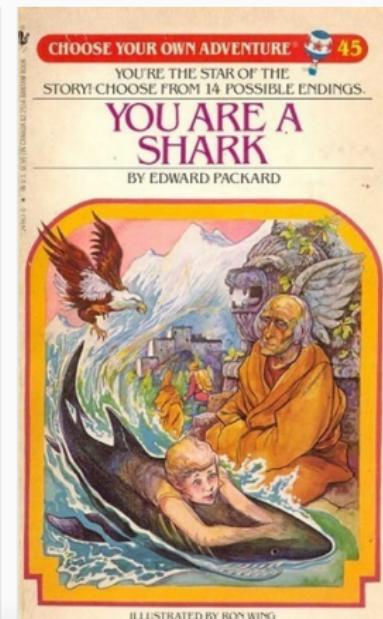
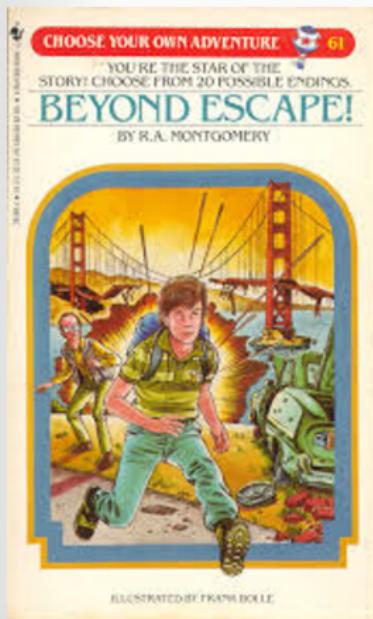
Marcus W. Beck

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Email: beck.marcus@epa.gov

July 27, 2016

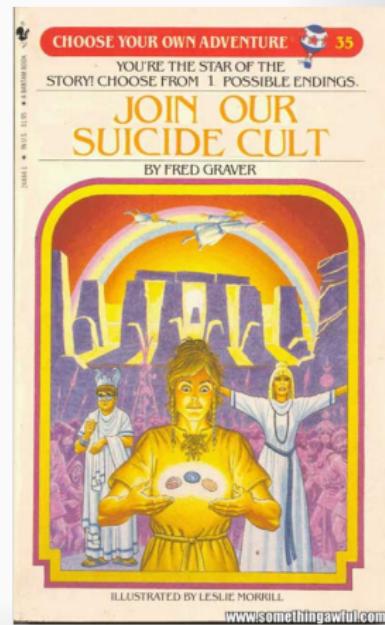
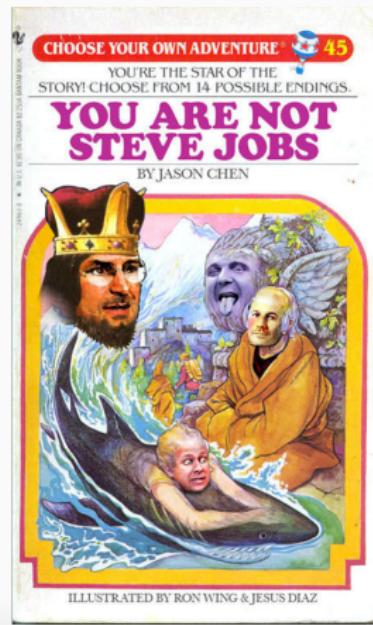
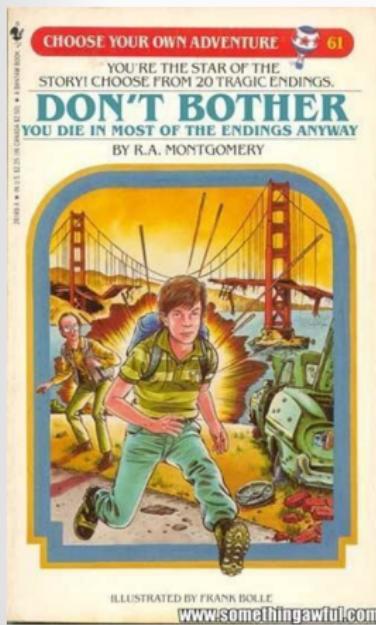


Choosing your own adventure





Choosing your own adventure





Choosing your own adventure

13 years old

1. Learn to fly
2. Join Air Force
3. Fighter pilot/
professional
skateboarder



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20 years old

1. BSc in Zoology
2. Intern for FWC
3. MSc in
Conservation
Biology
4. Fisheries
Biologist



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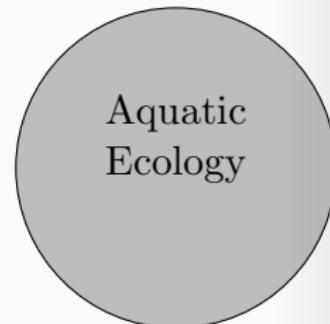
1. BSc in Zoology
2. Intern for FWC
3. MSc in
Conservation
Biology
4. Fisheries
Biologist

30 years old

4. Intern for
MNDNR
5. PhD in
Conservation
Biology
6. ORISE post-doc
7. Fed post-doc

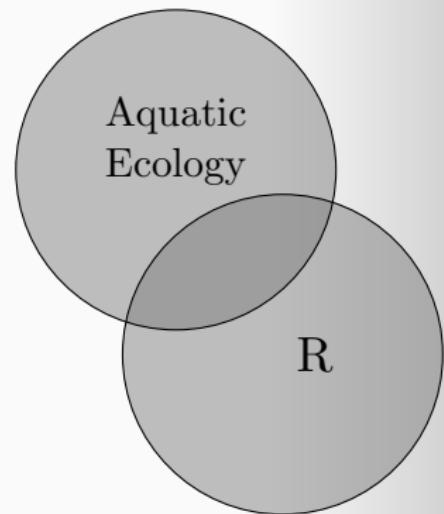
Elements of the adventure

- Water quality
- Biological monitoring
- Eutrophication
- Aquatic Macrophytes
- Ecosystem metabolism



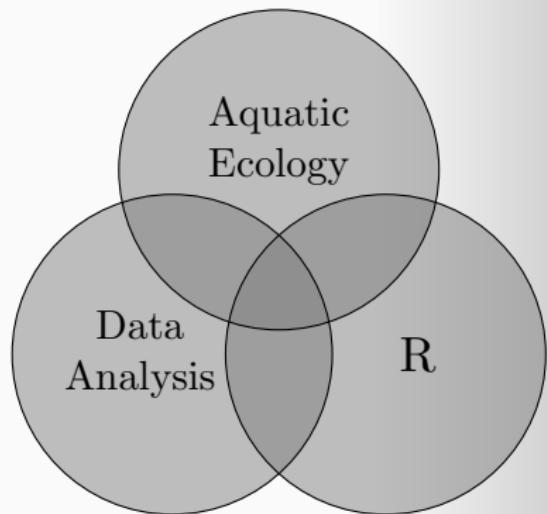
Elements of the adventure

- NeuralNetTools
- SWMPr
- WtRegDO
- WRTDStidal
- ggord
- rStrava



Elements of the adventure

- Indicator development
- Time series methods
- Reproducible research
- Visualization and graphics
- Model comparisons



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