NSF, K-12, and Broader Impacts
Thoughts & Tips

Bruce J. MacFadden, Professor & Curator (Univ FL)
Director E&O, iDigBio
(Former Program Officer NSF Education)
Things you already know

• In addition to Intellectual Merit, NSF expects to see a Broader Impact plan.

• K-12 is identified as a potentially important Broader Impact activity.

• Although scientists know how to promote IM, many are less able to balance this with a strong BI plan of activities.
Things you may not know

• NSF program officers are typically very supportive of BI.
• They have remarked to me that many BI K-12 outreach plans and activities are “sub-optimal” and oftentimes naïve.
• One recommended that a workshop like this might help the digitization research community.
Successful strategy: K-12 partnership(s)

• Mutual benefit
• How do you develop the partnership?
• Teachers & administrators
• Other stakeholders & expertise
Why natural history digitization? How to sell it

• Aligns with several performance expectations of NGSS, for example
• Authentic research practice
• If properly planned, can integrate STEM
Evaluation & assessment

• The importance of evaluation & assessment
  – Project efficacy
  – Teacher PD
  – Student achievement

• Partner with sci ed, evaluators
Summary

• Immense potential exists with the ca. 50 million K-12 learners in the US and their teachers.

• Other K-12 resources
  – NSTA, NABT, NGSS, NAS Press, etc.
  – NSF e.g. supplements to existing projects
    • Also stand-alone DRK-12, iTEST, etc.