What is citizen science? Participation of volunteer citizens in scientific studies as research assistants in collecting data, monitoring wild animals, plants and environmental markers” (Cohn 2008)

<table>
<thead>
<tr>
<th>Benefits for SCIENCE</th>
<th>Benefits for YOU</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Data for wider geographic areas</td>
<td>• Great teaching and learning opportunities</td>
</tr>
<tr>
<td>• Data for longer time spans</td>
<td>• Be a “scientist”</td>
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<tr>
<td>• Rich data</td>
<td>• Learn new knowledge and skills</td>
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<tr>
<td>• Cheap/free data</td>
<td>• Contribute to major scientific work</td>
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<tr>
<td>• Intellectual stimulation</td>
<td>• Family activity</td>
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<tr>
<td>• Civic engagement</td>
<td>• Have fun!</td>
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<tr>
<td>• Train next generation scientists</td>
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(1) What’s in your backyard? Natural Products Discovery Group (https://whatsinyourbackyard.org/)
- Goal – Find chemical compounds made by nature (i.e. natural products) that have the capacity to combat human diseases.
- Extract natural products from soil microbes (e.g. fungi).
- They will send you a kit, and you will send a soil sample.
- Many teaching and learning opportunities!

(2) eBird (http://ebird.org/content/ebird/)
- A real-time, online checklist program.
- Information on bird abundance and distribution.
- As of 2018,
  - 420,000 people have entered data
  - 590 million observations
  - Every country in the world!
- 10,245+ species (98%+ of all bird species)
- Available data:
  1) Distribution of species
  2) Species richness
  3) Species composition
  4) Habitat information

(3) iNaturalist (http://www.inaturalist.org/)
- Online repository for ALL species.
- A dynamic community to identify species.
- You take a picture, upload it to the program and identify it.
  - Available data:
    1) Distribution of species
    2) Species richness
    3) Species composition
    4) Habitat information
- Education toolkit by City Nature Challenge:
  - Explore more about Virginia BioBlitz Project - https://sites.google.com/view/virginiaabiol blitz/
  - Virginia BioBlitz iNaturalist project - https://www.inaturalist.org/projects/virginia-biobitz