## THAD Therapeutic Horticulture Activity Database

## Activity: Nature Goal: Cognitive/Intellectual Populations: All

## **TH Activity Plan – Bats**

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60	ACTIVITY DESCRIPTION: Participants will explore nature connections using a bat theme, doing several bat related activities.
Materials	<ul> <li>THERAPEUTIC GOALS:</li> <li>Cognitive/Intellectual: Pique curiosity by exploring bat information &amp; facts; strengthen cognitive function by following instructions</li> <li>Physical: Strengthen gross motor skills by flying paper bat; strengthen vertical arm reach</li> <li>Psychological/Emotional: Address &amp; diminish fear of bats &amp; natural environments; discuss phobias &amp; environmental ecophobia</li> <li>Sensory: Calm an anxious brain; develop strategies for calming self</li> <li>Social: Interact with group members using humor &amp; creative activities</li> </ul>
Black construction paper, template for wings, white paper reinforcements or googly eyes	<ol> <li>STEP-BY-STEP PROCESS:</li> <li>Pre-Session Preparation: Gather materials &amp; if possible have a bat house for session. Research bat facts – create handout. Pre-print jokes for joke booklet. Make a sample bat puppet &amp; joke booklet.</li> </ol>
Glue, scrap paper, Q tips, stapler, scissors, pencils, white chalk	2. Facilitator begins session by introducing session as a nature theme with bats as the focus. Some basic facts about bats, particularly their beneficial role in nature sets a positive tone. In school settings, library books on bats can be made available or provide a handout with bat facts for other settings & populations.
Printed bat jokes, construction paper for booklet cover	3. Ask participants if they have fear of batsor other nature elements. Introduce terms <i>nature deficit disorder</i> & <i>ecophobia</i> if appropriate.
Gloves, wipes	4. To address and reduce fear of these, the TH session will use several activities & humor including bat jokes (individuals can make a joke booklet- jokes below) & making a paper bat puppet.
<ol> <li>Paper bat puppet: Distribute bat wing template to be traced &amp; cut from 1 piece of black construction paper for 2 wings (per puppet). Cut 8x11 black paper in half (half piece per person), then fold in thirds for bat</li> </ol>	

- for 2 wings (per puppet). Cut 8x11 black paper in half (half piece per person), then fold in thirds for bat body (refer to photo). Glue. Fold one end of body to form point and staple. Glue bat wings onto body. Use white paper reinforcements or googly eyes for the eyes. <u>Alternative bat puppet can use toilet paper rolls</u>.
- 6. Facilitator leads participants on a walk throughout activity or facility area, exercising gross motor/arm movement flying the puppets. Wings move gracefully with upper arm movement.
- 7. Activity can conclude with bat jokes, making bat joke booklets, talking about Halloween, and finishing with realistic bat facts as contributors to nature and the health of gardens and the environment.

**APPLICATIONS FOR POPULATIONS:** A low-cost seasonal or nature-focused activity with an environmental element, this TH activity can be enjoyable and beneficial for most populations. Bats play an important role in nature and gardens and can be a useful topic for addressing health challenges across domains. For people with nature/bat/insect phobias or fears, psychological and cognitive/intellectual goals can address these, providing scientific facts that may contribute to better understanding, dispelling concerns, while integrating humor in the various activities. The concept of <u>nature deficit disorder</u>, the fear of nature, and <u>ecophobia</u>, pervasive worry over environmental issues, is experienced by children and adults and can have significant impacts on lives, reduced

access to the outdoors, and lower melatonin production with less access to sunlight vital for health. Therapeutic goals can support positive interactions, engaging group activity and humor as mechanisms for decreasing stress and uneasiness related to bats and nature.

**SAFETY CONSIDERATIONS:** Use of staplers may be inappropriate for some populations. Facilitator can do this step. Use white paper reinforcements instead of googly eyes for people tempted to put small items in mouths. Paper cuts can be washed with soap and water.

**NOTES OR OTHER CONSIDERATIONS:** Bat pieces can be pre-cut if needed. Templates are best made from poster board for durability. Use verbal and visual clues for step by step process. Ability to follow directions can be an indicator/assessment of cognitive function. Memory impaired participants will find bat puppet steps very challenging; it may not be appropriate for some depending on stage of dementia.

Bats are highly beneficial because they consume tremendous numbers of night-flying insects, including mosquitoes. Bats locate insects at night using a very sophisticated sonar system (echolocation), emitting supersonic sounds and listening for echoes. Bats are most frequently seen on warm nights feeding over Bat Joke Booklet source: <u>http://www.jokes4us.com/animaljoke</u> <u>s/batjokes.html</u> Q: What's a bat's favorite dessert? A: I-Scream! Q: How can you tell a vampire likes baseball? A: Every night he turns into a bat. Q: How do you write a book about bats? A: With a ghostwriter. Q: Did you hear about the two bats meeting? A: It was love at first bite!

bodies of water, around buildings or forest edges, or around lights. During the day, bats find shelter in a variety of secluded places, preferring small, dark, poorly ventilated spaces that heat up during the day. Tree cavities, snags, and especially unpruned cabbage palms are important roost sites. Due to increasing urbanization, the number of these natural roosting sites has been reduced and window shutters, drain pipes, billboards, roof tiles, and attics have become popular roosting site substitutes. <u>Bats of Florida, UF IFAS Extension #WEC 186. Bats of Florida Poster</u> from University of Florida Extension.

Bat-plant connections: Plants that look like bats-Tacca species, *Cuphea llavea*; plants that are pollinated by nectar feeding bats-cacao, guava, mango, banana, agave, saguaro; and seeds that are dispersed by fruit feeding bats-wild cashew, Indian almond, wild figs.





## **REFERENCES/ RESOURCES:**

Bat Conversation International. (2024). Bat Sounds. https://www.batcon.org/experience-bats/bat-beats/ Fredrich Alexander University. (2015). Carnivorus plants attract bats.

https://www.fau.eu/2015/07/20/news/research/carnivorous-plants-attract-bats-with-echo-reflectors/ Louv, R. (2019). What is nature-deficit disorder?

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TH Activity Plan form developed by Lesley Fleming, Susan Morgan and Kathy Brechner (2012), revised in 2023.