

Parasitology Trial Event Rules 2019
New York State Science Olympiad

1. **DESCRIPTION:** This event will test student knowledge of parasites in local and global ecosystems.
A TEAM OF UP TO: 2 **APPROXIMATE TIME:** 50 minutes
2. **EVENT PARAMETERS:**
 - a. Each team may bring one 2019 Official National Parasite List, posted on the National Website (soinc.org) as well three-ring binder of any size containing information in any form and from any source attached using the available rings.
 - b. The 2019 Official National Parasite List does not have to be secured in the binder.
 - c. If the event features a rotation through a series of laboratory stations in which the participants interact with samples, specimens, or displays no material may be removed from the binder while at, or in-between, laboratory stations.
3. **THE COMPETITION:**
 - a. Each team will be given an answer sheet on which they will record answers to each section.
 - b. The competition may be run as stations and/or as a PowerPoint presentation
 - c. Specimens/pictures will be lettered or numbered at each station. The even could include live and preserved specimens and slides or pictures of specimens.
 - d. Participants should be able to do basic identification to the level indicated on the Official List. No more than 50% of the competition will require providing common or scientific names.
 - e. Each specimen/picture will have one or more questions accompanying it on some aspect of the organism's life history, distribution, anatomy and physiology, reproduction, hosts, ecological niche, behavioral adaptations, epidemiology and transmission.
 - f. Only the Official National List will be used for taxonomy questions.
4. **SAMPLE TASKS/STATIONS/QUESTIONS:**
 - a. Place in order the life cycle pictures of *Plasmodium falciparum*.
 - b. How do populations attempt to deter *Plasmodium falciparum* transmission?
 - c. A trophozoite is the feeding stage of what type of parasite?
 - d. Primary Amebic Meningoencephalitis (PAM) is caused by which parasite?
 - e. Discuss how *Euhaplorchis californensis* changes the behavior of its host, the California killifish, thereby increasing its transmission.
5. **SCORING:**
 - a. High score wins.
 - b. Points will be awarded for the quality and accuracy of responses.
 - c. Selected questions may be used as tiebreakers.