***[TOXOPLASMA GONDII](https://doi.org/10.7589/jwd-d-22-00021)* [PREVALENCE, PARTIAL GENOTYPES, AND SPATIAL VARIATION IN NORTH AMERICAN RIVER OTTERS (](https://doi.org/10.7589/jwd-d-22-00021)*[LONTRA CANADENSIS](https://doi.org/10.7589/jwd-d-22-00021)*[) IN THE UPPER PENINSULA OF MICHIGAN, USA](https://doi.org/10.7589/jwd-d-22-00021)**

**Practice Question:** What were the significant findings of screening trapped North American river otters’ tongue tissue in the Northern Michigan peninsula?

1. Adult females had the highest incidence of *Toxoplasma gondii*
2. *Toxoplasma gondii* prevalence differed from previous studies in this species
3. Genotype 4 was the *Toxoplasma gondii* isolated most often
4. Higher incidence of *Toxoplasma gondii* in the Lake Michigan watershed
5. Decreased prevalence for *Toxoplasma gondii* in areas with exotic plants

Answer: C, most (53.8%) of the genotyped samples were type 4

**QUESTION:** Which is true regarding flea control in wild black tailed prairie dogs (*Cynomys ludovicianus*)?

1. Lufenuron-nitenpyram baits provide flea protection for >3 months
2. Torpid animals may need more frequent dosing than non-torpid animals
3. Fipronil baits are an effective method of flea control
4. Common adverse effects of oral baits include diarrhea and weight loss
5. High dose nitenpyram can provide flea protection for 30 days

Answer: C

*Source:* *EVALUATING BAITS WITH LUFENURON AND NITENPYRAM FOR FLEA CONTROL ON PRAIRIE DOGS (CYNOMYS SPP.) TO MITIGATE PLAGUE. JWD 2023. Eads et al.*

**Terrestrial pathogen pollutant, *Toxoplasma gondii*, threatens Hawaiian monk seals (*Neomonachus schauinslandi*) following heavy runoff events.** *Journal of Wildlife Diseases*. 59.1. (2023): 1-11.

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Question: There is an elevated risk of stranding for *Neomonachus schauinslandi* how many weeks after a high runoff event in Hawaii?

1. 1 week
2. 8 weeks
3. 3 weeks
4. 12 weeks
5. There is not an elevated risk of stranding based on runoff level.

Answer: C

Which of the following is true in regards to treating Cynomys spp. With baits laced with fipronil?

1. Fipronil kills all stages of the flea life cycle; however, can lead to increased eggs due to depleting larva populations
2. Fipronil is not light sensitive and can last 200 days in environments of Cynomys spp.
3. Fipronil is a pyrethroid ester compound, which prevent the closure of sodium channels
4. No significant difference was found between larva exposed to fipronil feces and those not exposed
5. There is no evidence suggesting the potential of cross-resistance between dieldrin and fipronil

Answer: D. Fipronil likely does not affect the egg stage, it is light sensitive and a phenylpyrazole; there is some evidence that there could be potential cross-resistance but the degree was relatively weak

Browning, Geoffrey R., et al. "Outcomes of transplacental transmission of *Toxoplasma Gondii* from chronically infected female red ruffed lemurs (*Varecia Rubra*)." *Journal of Zoo and Wildlife Medicine* 52.3 (2021): 1036-1041.

Question:

Which of the following statements is true regarding transplacental transmission of *Toxoplasma Gondii* from chronically infected female red ruffed lemurs (*Varecia Rubra*)?

1. In all cases, transplacental transmission of *Toxoplasma Gondii* led to acute disseminated toxoplasmosis and stillbirth.
2. Reactivation of latent toxoplasmosis led to severe clinical disease in both affected dams. One dam died several weeks later as the result of localized myocardial toxoplasmosis.
3. Both nulliparous females experienced reactivation of chronic, latent toxoplasmosis and transplacental transmission. Subsequent pregnancies did not lead to transplacental transmission.
4. Gestational reactivation of latent toxoplasmosis was not universal, neither across individuals nor across successive pregnancies in a single individual.
5. In all cases, transplacental transmission of *Toxoplasma Gondii* led chronic congenital toxoplasmosis and survival of offspring.

Answer:  D