

# Seroprevalence of selected zoonotic parasites in Estonian hunter population compared to the general Estonian population



Marilin Janson<sup>1</sup>, Kadi Neare<sup>1</sup>, Pirje Hütt<sup>2</sup>, Toomas Orro<sup>1</sup>, Arvo Viltrop<sup>1</sup> and Brian Lassen<sup>1</sup>

<sup>1</sup>Estonian University of Life Sciences, Institute of Veterinary Medicine and Animal Sciences, Tartu, Estonia

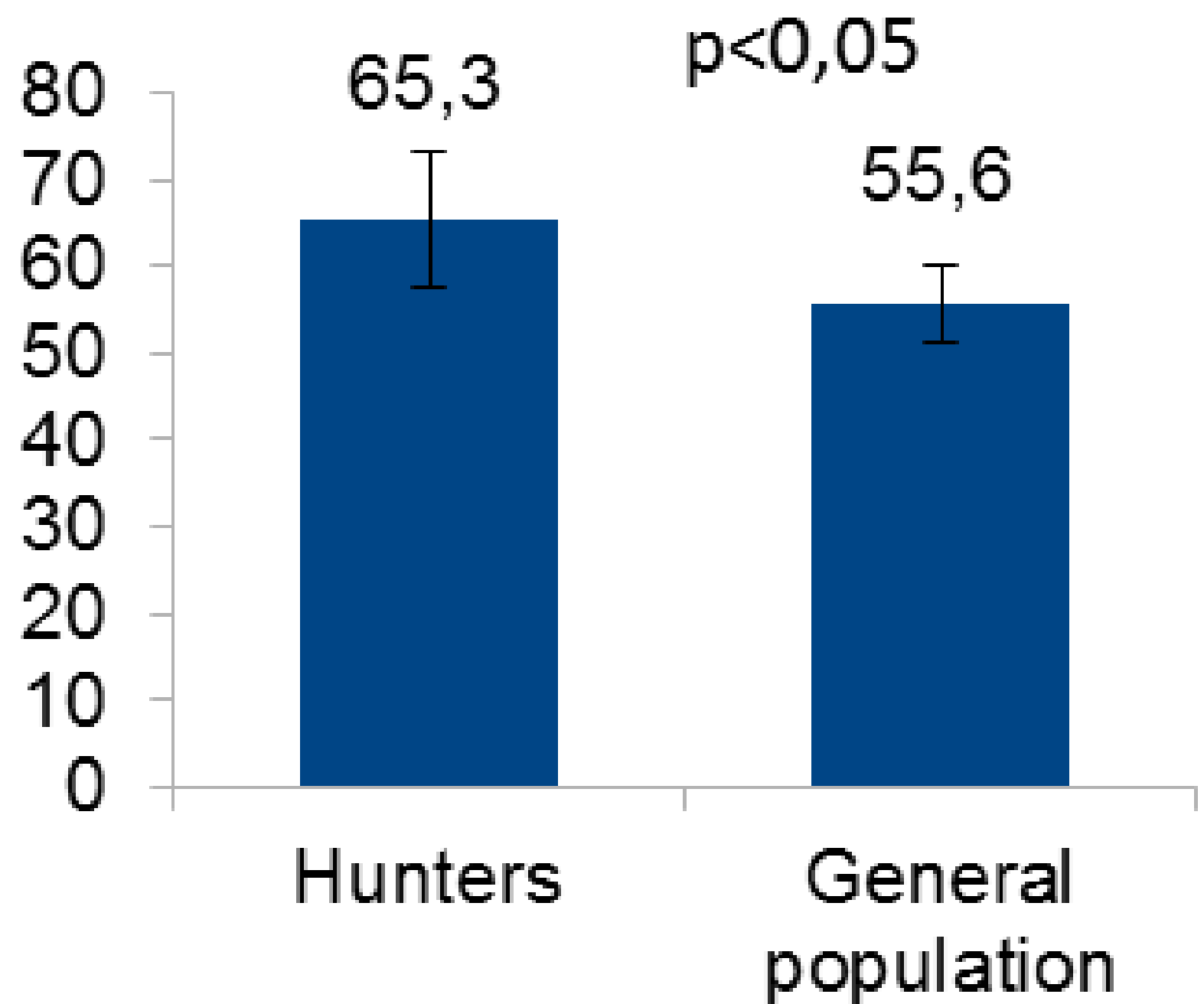
<sup>2</sup>University of Tartu, Faculty of Medicine, Department of Microbiology, Tartu, Estonia

Additional information: marilin.janson@emu.ee

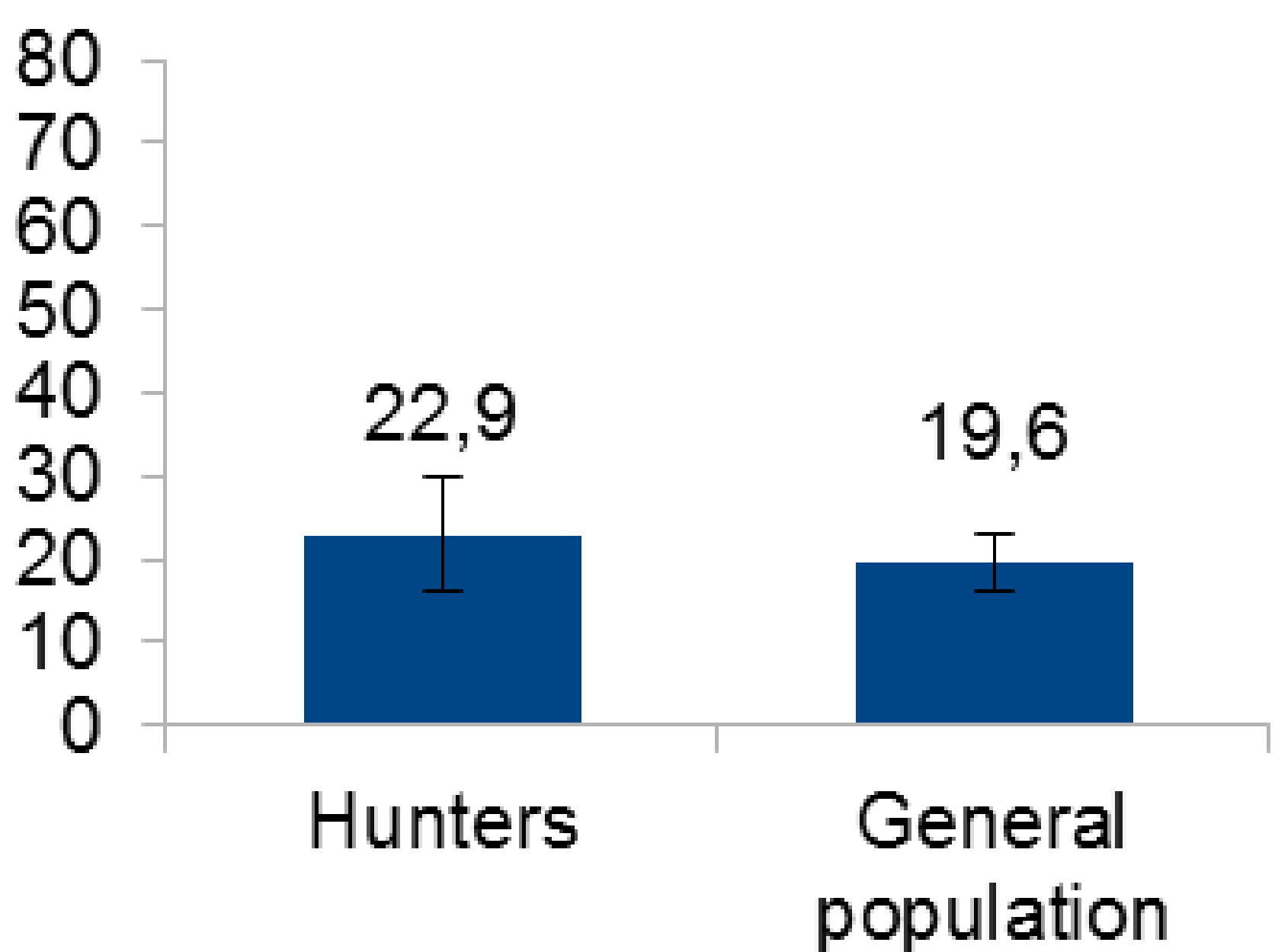
**Goal:** To evaluate the seroprevalence of zoonotic parasites *Echinococcus*, *Toxoplasma*, *Trichinella*, *Ascaris*, *Taenia* and *Toxocara* in hunters compared to the general Estonian population.

**Our hypothesis:** Compared to the risk group (hunters), the general Estonian population is less infected with parasites being studied.

*Toxoplasma gondii*  
IgG antibodies



*Ascaris lumbricoides*  
IgG antibodies

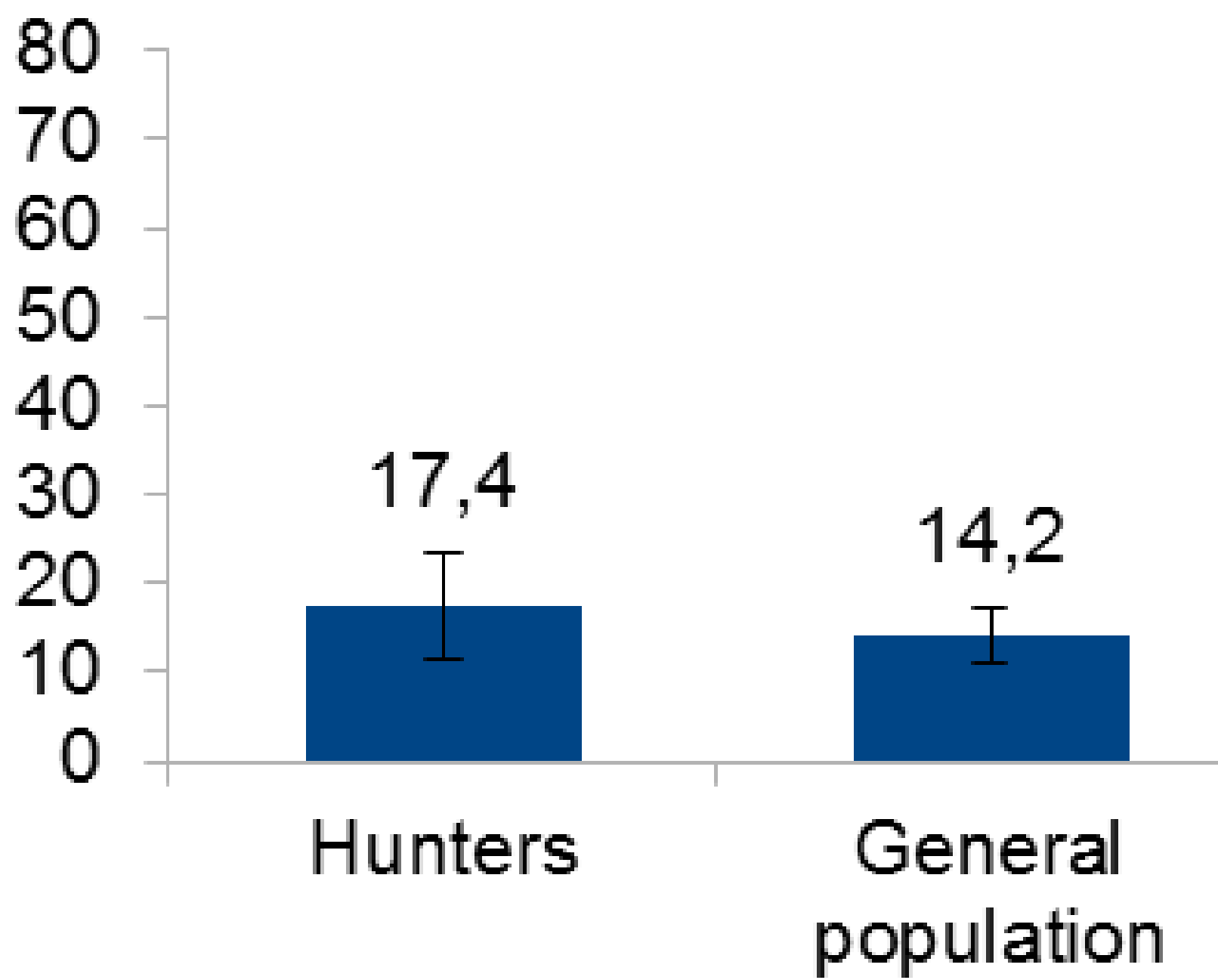


**Material:** Venous blood samples from hunter volunteers (n=144) at the hunters yearly reunion in 2013.

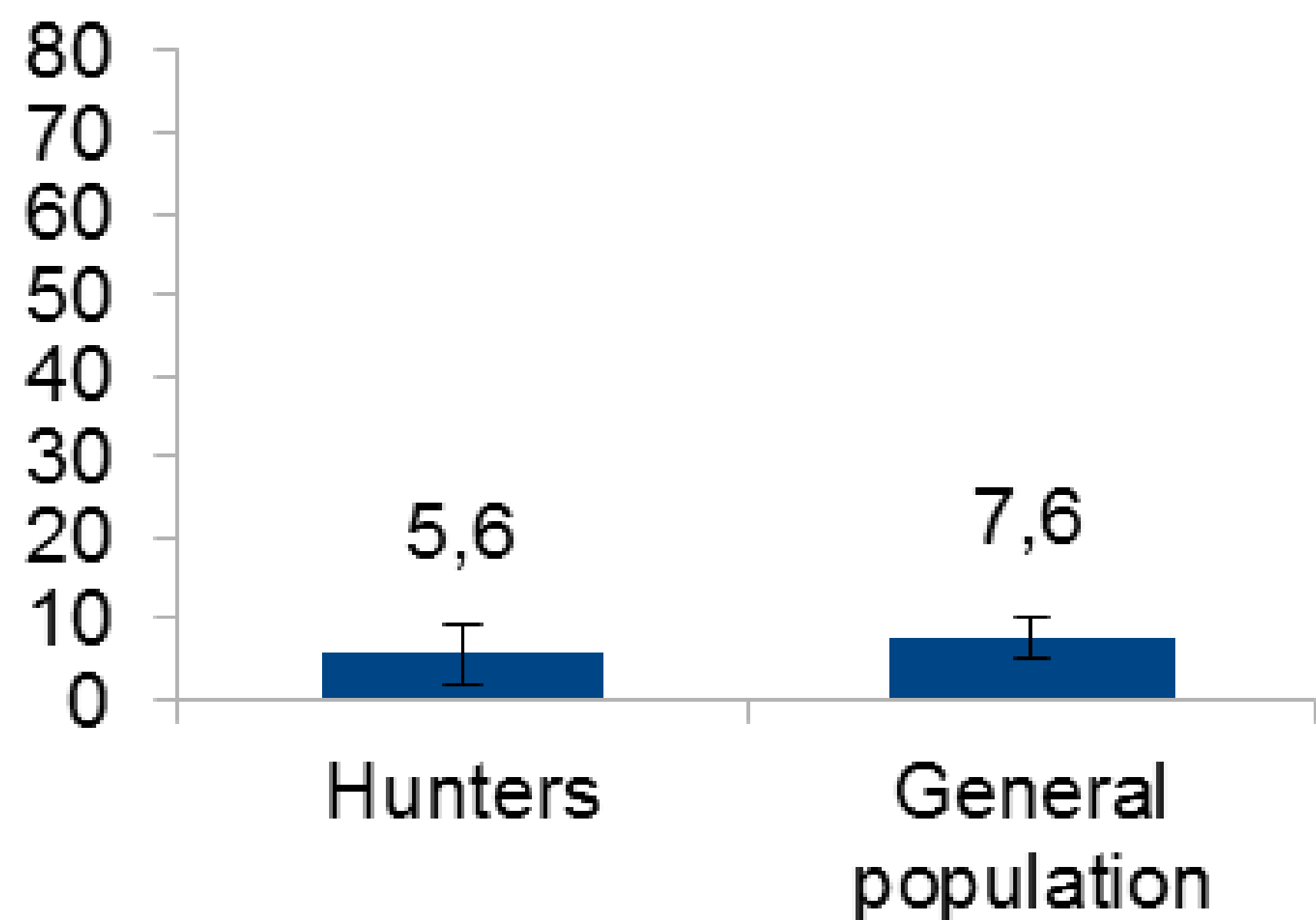
Plasma samples from Estonian Genome Centre (n=500) were used as being representative of Estonian general population.

**Method:** All samples have been investigated for IgG antibodies against parasites being studied using NovaTec (Germany) commercial ELISA kits.

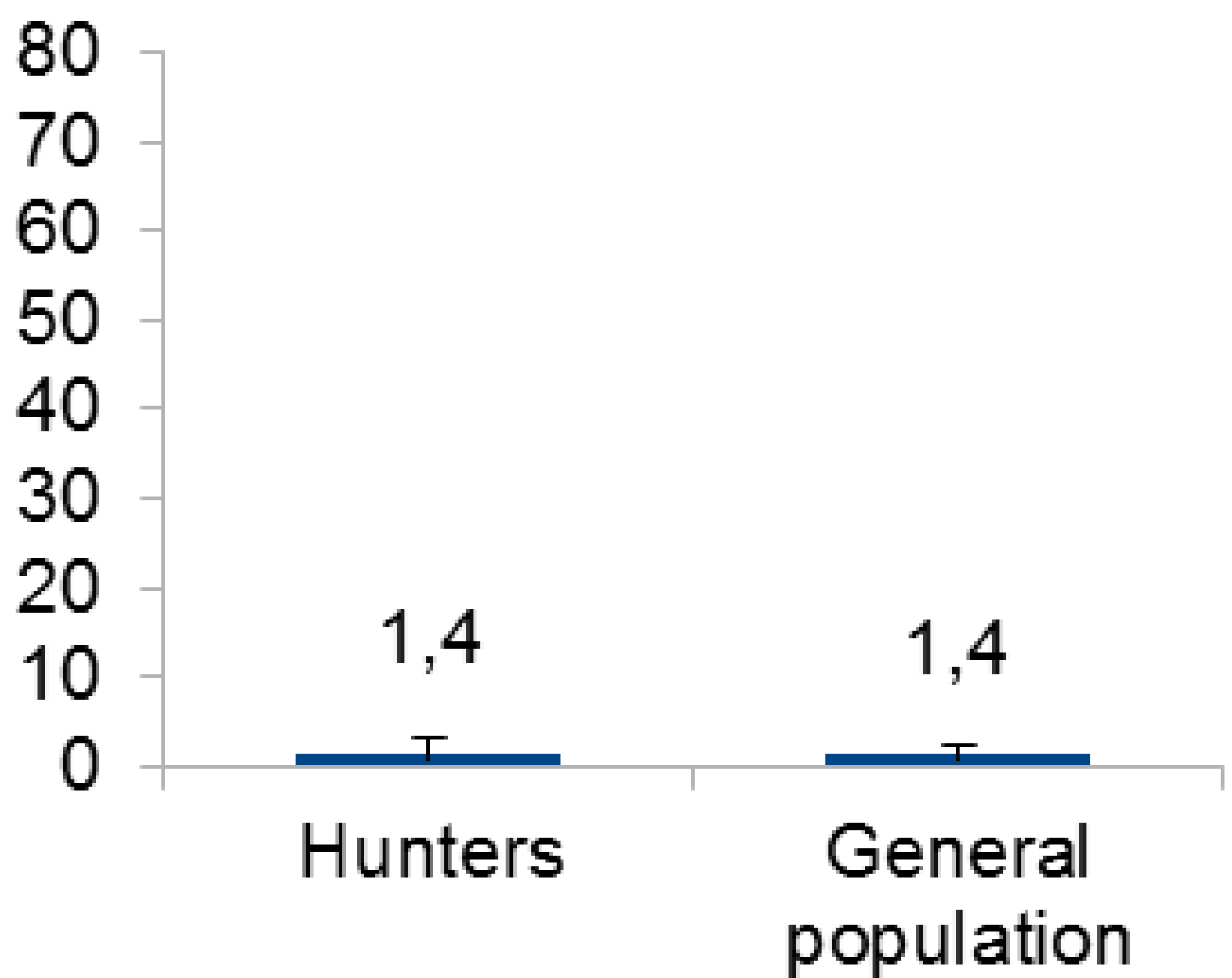
*Toxocara canis* IgG  
antibodies



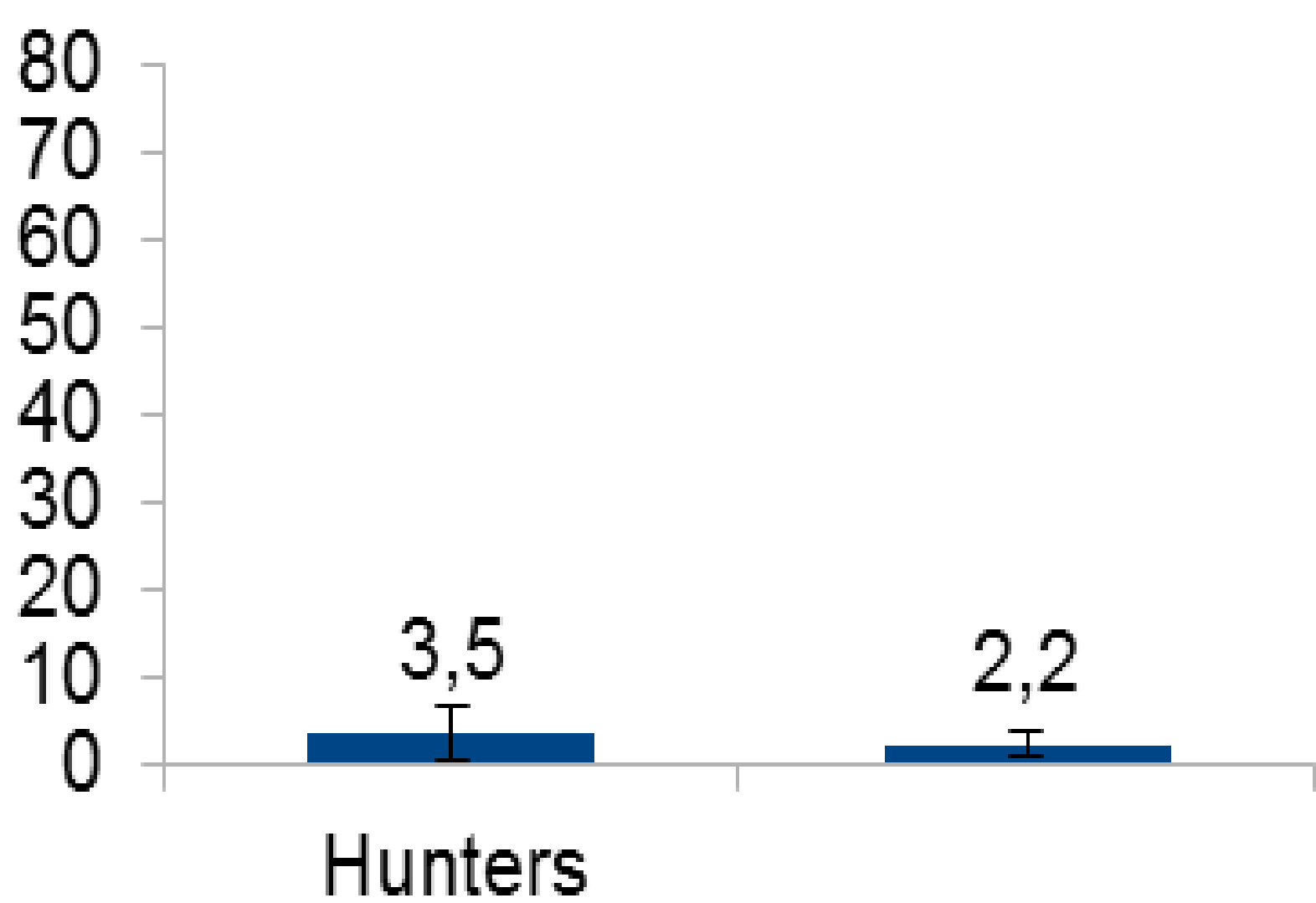
*Trichinella spiralis* IgG  
antibodies



*Echinococcus* spp.  
IgG antibodies



*Taenia solium* IgG  
antibodies



**Conclusion:** More hunters were seropositive for *Toxoplasma* IgG antibodies than the general population, but no differences were observed for *Echinococcus*, *Ascaris*, *Toxocara*, *Trichinella* and *Taenia*. All parasites investigated indicated a large proportion of both investigated groups with evidence of exposure.

**Future:** With Western blot method we will confirm all positive samples for *Echinococcus*, *Taenia* and *Trichinella*.

Many thanks to all voluntary participants and to our great nurses who helped to collect blood samples – Anu Kuusmann and Marge Reiss. Funding from project: 8-2/T 120 16VLNH