

Szczotko, M., Matuszewska, R., Gizinski, R., Krogulska, B. Evaluation of Prevalence of Protozoan Parasites *Cryptosporidium* and *Giardia* in Selected Swimming Areas in Masovian Voivodship. *Ochrona Srodowiska* 2015, Vol. 37, No. 1, pp. 49–53.

**Abstract:** Monitoring of protozoan parasite species, *Cryptosporidium* and *Giardia*, is not covered by quality control system of surface waters in designated swimming areas. The objective of this study was to assess the prevalence of these protozoa in the selected surface waters used for recreational activities in Masovian Voivodship. In addition, microbiological parameters (*E. coli*, enterococci) as well as the spore content of sulphite-reducing clostridia were determined. The studies confirmed the presence of *Cryptosporidium* sp. and *Giardia* sp. in 65% and 95% of tested water samples, respectively. The average number of detected *Cryptosporidium* sp. oocysts was 0.11 oocysts per 1 dm<sup>3</sup>, while of *Giardia* sp. – 0.31 cysts per 1 dm<sup>3</sup> of water. The source of protozoan oocysts could be agricultural contamination as well as unregulated processes of wastewater management at farms located near the swimming areas. The spore number of sulphite-reducing clostridia (non-standardized parameter) did not exceed 50 cfu/100 cm<sup>3</sup>. The study results confirm that it is purposeful to extend the routine microbiological testing methodology of recreational water by the discussed sanitary indicators in order to improve health security of the population.

**Keywords:** Protozoan parasite, oocyst, cyst, clostridia.