

## ABSTRACT

- Title:** Comparative analysis of the kayak forward stroke
- Objectives:** The aim of this study is to describe and to compare the kayak forward stroke performed in the pool with countercurrent and on the flat water.
- Methods:** The research was conducted in an intentionally chosen sample of eight kayakers with high level of performance in whitewater slalom. We watched activity of twelve selected muscles during kayak forward stroke performed in the counterflow pool and on the flat water by surface electromyography and kinematic analysis. Study evaluates intraindividual and subsequently interindividual muscle timing and the size of the muscle activation due to maximal voluntary contraction.
- Results:** The results proved the same timing of muscles in counterflow pool and on flat water. The muscle activity in the counterflow pool was bigger than on flat water.
- Key words:** kayak, counterflow pool, surface electromyography, paddling