Abstract

In vertebrates circulatory system serves in ensuring of numerous of functions. A number of demands determine the characteristics of heart and it appears that meeting oxygen consumption is the most important factor. Oxygen consumption is in strong relationship with body weight and other factors like body temperature, ambient temperature or level of activity. We can assume that changes in body weight and temperature will have significant influence to the weight of heart and level of cardiac function.

The aim of this work is to review knowledge of scaling of heart size, determinants of differences in cardiac function on larger taxonomical scale and focus on the relationship among body size, temperature and heart function.

Key words: body size, temperature, heart rate, stroke volume, heart size, vertebrates