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Abstract

YEGIASARIAN EM

Structure of Acoustic Signals of Frogs (*Rana*)

Eduard M. YEGIASARIAN

Yerevan State University, Biological Faculty, Alex. Manandagian Str. 1, Yerevan RA 375049, Armenia

In acoustic signals of the lake frogs there are long-term and short-term signals composing with separate and nonseparate periodical impulses as quasiperiodic fading waves. In some cases the impulses in signal make groups with several impulses. All impulses of the same specie have the form of fading sinusoid with 7-8 semiwaves. The intervals between impulses oscillate in nonsignificant bounds. The amplitude is more vary, which depends on air and water temperature, the time of the day, physiological state of animal etc. In short-term signals the amplitude is gradually increasing from the beginning and decreasing to the end. The same scene may be observed in the long-term signals: the total amplitude of separate signals also has a look of decreasing sinusoid. But the spectrum of the long-term signals is more wide and there is one maximum in 1,5 kHz, and in short-term signal the part of the highfrequent energy shifts in area of more shot frequencies with unchanged basic frequency.

Keywords frogs; acoustic signals; amplitude