Seasonal dynamics of ecosystem services of grassland in Qinghai-Tibetan Plateau

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Abstract

Based on the theory of ecosystem services and by using RS and GIS techniques, the ecosystem services of grassland in Qinghai-Tibetan Plateau were analyzed and evaluated, with growth season as time unit. The results showed that the service of supplying biomass presented an up-down-up trend, and the peaks appeared in May and September. Its main affecting factors were PAR, soil moisture condition, and underground biomass. The service of carbon accumulation and oxygen release also presented up-down-up trend, which was related to the supplied biomass and its formation. As for the services of holding soil nutrients and water, the former had a peak in May, while the latter presented staggered variation due to the different water consumption characters of herbagages at their different growth stages.

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