气象与环境学报 2010, Vol. 26 Issue (6) :65-70 DOI:
快报

辽河三角洲主要植被类型土壤水盐含量研究

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Study on soil water and salt contents for main vegetation communities in the Liaohe Delta

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摘要 基于不同植被类型，探讨辽河三角洲土壤的水盐状况，研究土壤全盐与土壤含水量及土壤pH值之间的关系。结果表明：辽河三角洲植被类型不同，土壤盐分、土壤含水量及土壤pH值明显不同。不同土层裸滩土壤全盐量均较高，小叶杨最低。翅碱蓬、紫花苜蓿、芦苇和柽柳作为盐生植被，对土壤含盐量影响较大。不同土层小叶杨土壤含水量均较低。裸滩、翅碱蓬及芦苇受潮汐影响较大，土壤含水量差异较大。调查区土壤pH值偏碱性，变化范围为7.30—8.97。土壤全盐、土壤含水量及土壤pH值之间总体呈显著相关，可见土壤含水量和pH值是显著影响土壤全盐量的重要因素。

关键词： 土壤全盐 土壤含水量 土壤pH值 辽河三角洲

Abstract: Soil water and salt contents for main vegetation communities were analyzed and the relationships among soil total salt content, soil water content and soil pH were discussed in different soil layers in the Liaohe Delta. The results show that soil total salt content, soil water content and soil pH are obviously different for different vegetation communities in different soil layers. Soil total salt content is the highest in bare soil and the lowest in forest (Populus simonii) soil for different soil layers. The effects of halophytic vegetation on soil salt content are significant, such as seepweed (Suaeda salsa), alfalfa (Medicago sativa), reed (Phragmites communis) and willow (Tamarix chinensis). Soil water content is lower in forest (Populus simonii) soil for different soil layers. The effects of tide on bare soil, seepweed community and reed community are obvious, so the differences of soil water contents among them is also significant. Soil pH is 7.30-8.97 in study area. In general, soil total salt content is significantly related with soil water content and soil pH, which indicates that soil water content and soil pH are important factors influencing soil total salt content.

Keywords:

收稿日期: 2010-11-08;

引用本文:
吕国红, 周莉, 贾庆宇等 . 辽河三角洲主要植被类型土壤水盐含量研究[J]. 气象与环境学报, 2010,V26(6): 65-70

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