



首页

期刊介绍

编委会

期刊订阅

下载中心

留言板

联系我们

English

云南农业大学学报(自然科学) » 2011, Vol. 26 » Issue (4) :472-479 DOI:

动物科学 最新目录 | 下期目录 | 过刊浏览 | 高级检索

<< Previous Articles Next Articles >>

槟榔江水牛体重及体尺生长规律的研究

1. 云南农业大学 动物科学技术学院, 云南 昆明 650201;
2. 云南巴福乐水牛技术研究所, 云南 昆明650021;
3. 云南省腾冲县畜牧技术推广中心, 云南 腾冲 679100)

Growth Regularities of Body Weight and Size of Binglangjiang Buffalo

1. College of Animal Science and Technology, Yunnan Agricultural University, Kunming 650201, China;
2. Yunnan Institute of BAFULE Bafflo Science and Technology, Kunming 650021, China;
3. Popularization and Service Center of Animal Science and Technology of Tengchong, Tengchong 679100, China)

摘要

参考文献

相关文章

Download: [PDF](#) (1224KB) [HTML](#) 1KB Export: [BibTeX](#) or [EndNote \(RIS\)](#) [Supporting Info](#)

摘要 为了阐明槟榔江水牛的生长发育规律, 分别利用Brody, Gompertz和Logistic模型对其体重、体高、体斜长、胸围、腹围、管围6个指标进行了累积生长曲线方程的拟合和比较分析, 并利用日增重描述了该水牛的绝对生长, 进一步采用改进的计算方法对其相对生长规律作了分析。结果表明: 3种曲线模型拟合的效果都很好($r^2 > 0.95$)。通过比较各个性状的拟合度, Brody模型的拟合度最大, 最适合用于槟榔江水牛的生长发育研究。由Gompertz模型计算出槟榔江水牛公牛的拐点月龄和拐点体重分别为7 1月龄和 122 4 kg; 母牛的拐点月龄和拐点体重分别为6 0月龄和 107 9 kg。公、母牛都在6月龄达到绝对生长高峰, 而18月龄绝对生长速度最慢。公牛的日增重呈先下降后上升的过程。母牛的日增重出现了2个峰, 一个在6月龄, 另一个在24月龄。公、母牛的相对生长曲线较一致, 后期生长强度明显不如前期, 整条曲线大致上呈下降趋势, 表明在幼年时新陈代谢旺盛, 生长发育的强度高, 成年后趋于稳定。本研究提示应加强槟榔江水牛的饲养管理, 特别应重视其母牛和育成期牛的饲养管理。

关键词: 槟榔江水牛 生长曲线 累积生长 绝对生长 相对生长

Abstract: To elucidate growth and development patterns of Binglangjiang buffalo, Brody, Gompertz and Logistic model were employed to fit its cumulative growth curves by using 6 experimental indexes (viz. body weight, body height, body slanting length, chest circumference, abdominal circumference, circumference of cannon bone). Meanwhile, average daily gain (ADG) was adopted to describe and analyse its absolute growth, and an improved method was used to analyse its relative growth. The results revealed that three models could be fitted very well for all the indexes analyzed ($r^2 > 0.95$), and Brody model was the best model for studying growth and development patterns of Binglangjiang buffalo. The growth age and body height at inflection points estimated by using Gompertz model were 71 months old and 1224kg for male, and 60 months old and 1079 kg for female buffalo, respectively. Both of the male and female buffalo reached their absolute growth peak at 6 months old and their absolute growth rate became slowest at 18 months old. The ADG of male buffalo first descended, and then ascended, while the ADG of female buffalo was relatively complicated. There were two absolute growth peaks, one at their 6 months old, and the other at their 24 months old. The relative growth curve of male and female buffalo were basically similar, The growth intensity at later stage was significantly inferior to that of at early stage, The relative growth curve displayed generally downward trend, which indicated that the vigorous metabolism and the highest growth intensity for juvenile buffalo, and tending to be stable for the adult animals. The results in this study suggested that we should strengthen the feeding and management of Binglangjiang buffalo, especially its female buffalo and growing buffalo.

Keywords: Binglangjiang buffalo growth curve cumulative growth absolute growth relative growth

引用本文:

熊飞1, 苗永旺1**, 李大林2, 袁峰1, 李卫真1, 屈在久3. 槟榔江水牛体重及体尺生长规律的研究[J] 云南农业大学学报(自然科学), 2011, V26(4): 472-479

XIONG Fei1, MIAO Yong-wang1, LI Da-lin2, YUAN Feng1, LI Wei-zhen1, QU Zai-jiu3. Growth Regularities of Body Weight and Size of Binglangjiang Buffalo[J] Journal of Yunnan Agricultural University, 2011, V26(4): 472-479

Service

- 把本文推荐给朋友
- 加入我的书架
- 加入引用管理器
- Email Alert
- RSS

作者相关文章