

检测研究

# 盘龙江全程及滇池水样对植物染色体损伤的比较

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**摘要** 目的与方法: 本研究以蚕豆根尖微核作为染色体损伤的指标, 检测和比较昆明盘龙江不同区段水与滇池水的遗传毒性及差异。结果: 试验发现除昆明主要水源松花坝水库外, 盘龙江不同区段水样诱发的微核率均与对照有极显著差异( $P < 0.001 \sim 0.01$ ); 诱发微核率最高的水样是附近具有大量工业污染排放的金太滩排灌站, 沿河堤植物生长茂盛的地方污染有所减弱。结论: 研究提示盘龙江水尤其是中下游和滇池水体均存在对生物遗传物质有损伤作用的污染物, 构成了对人居环境和人类健康的威胁, 其不符合我国地面水环境质量标准(GHZB1-1999, GB3838-2002)对地面水的基本要求。显然, 盘龙江水及滇池水存在令人担忧的隐患, 进一步有效地治理, 尤其加强对沿岸排污行为的管理, 对于改善昆明人居环境和提高人民生活质量具有重要的意义。

**关键词** [盘龙江](#); [滇池](#); [水污染](#); [微核](#)

## VICIA FABIA BIOASSAYS FOR THE COMPARISON ON GENOTOXICITY OF SAMPLES FROM PANLONG RIVER AND DI ANCHI LAKE IN KUNMING

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**Abstract** Purpose and Methods: The study used micronucleus test in *Vicia faba* to detect and compare the genotoxicity of water samples collected from Panlong River and Dianchi area in Kunming City. Results: Except the sample from the SongHua Dam( the headwaters of Panlong River), all the water samples significantly induced micronuclei in *vicia faba* ( $P < 0.001 \sim 0.01$ ). The highest micronucleus frequencies was induced by the sample No.6 which was collected in JinTaiTan Irrigation and Drainage station which takes abundant industrial and municipal waste water effluent. Conclusion: The results imply that the water samples from Panlong River and Dianchi lake contain some polluting component(s) which induced genetic damage.

**Keywords** [Panlong river](#), [Dianchi lake](#), [micronucleus](#)

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