

# EDGE-GWAS Quick Function Test (synthetic data)

2026-02-10 16:34

## Summary

All quick smoke tests passed.

## Functions exercised

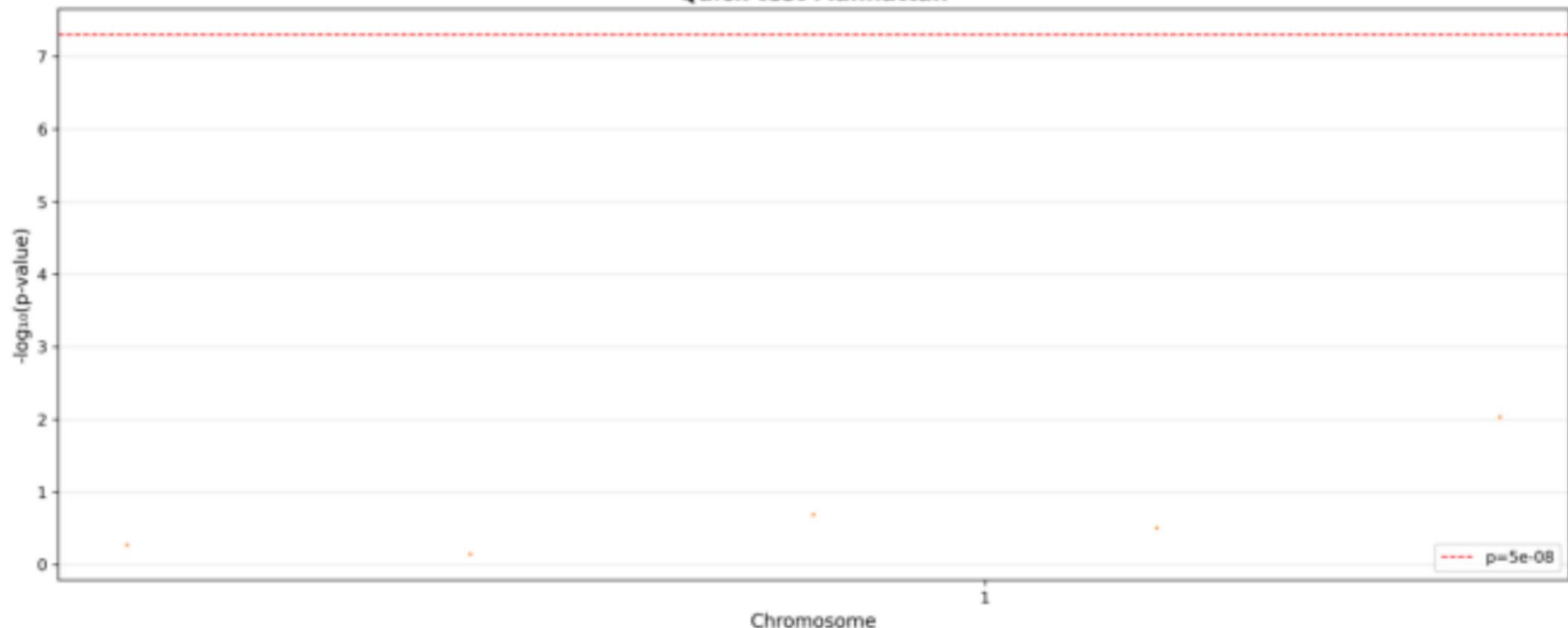
```
all exports: OK
calculate_genomic_inflation: OK
get_pc_covariate_list: OK
format_gwas_output: OK
create_summary_report: OK
save_results: OK
load_alpha_values: OK
EDGEAnalysis (continuous): OK
EDGEAnalysis (binary): OK
manhattan_plot: OK
qq_plot: OK
plot_alpha_distribution: OK
check_external_tools: OK
download_test_files: OK
```

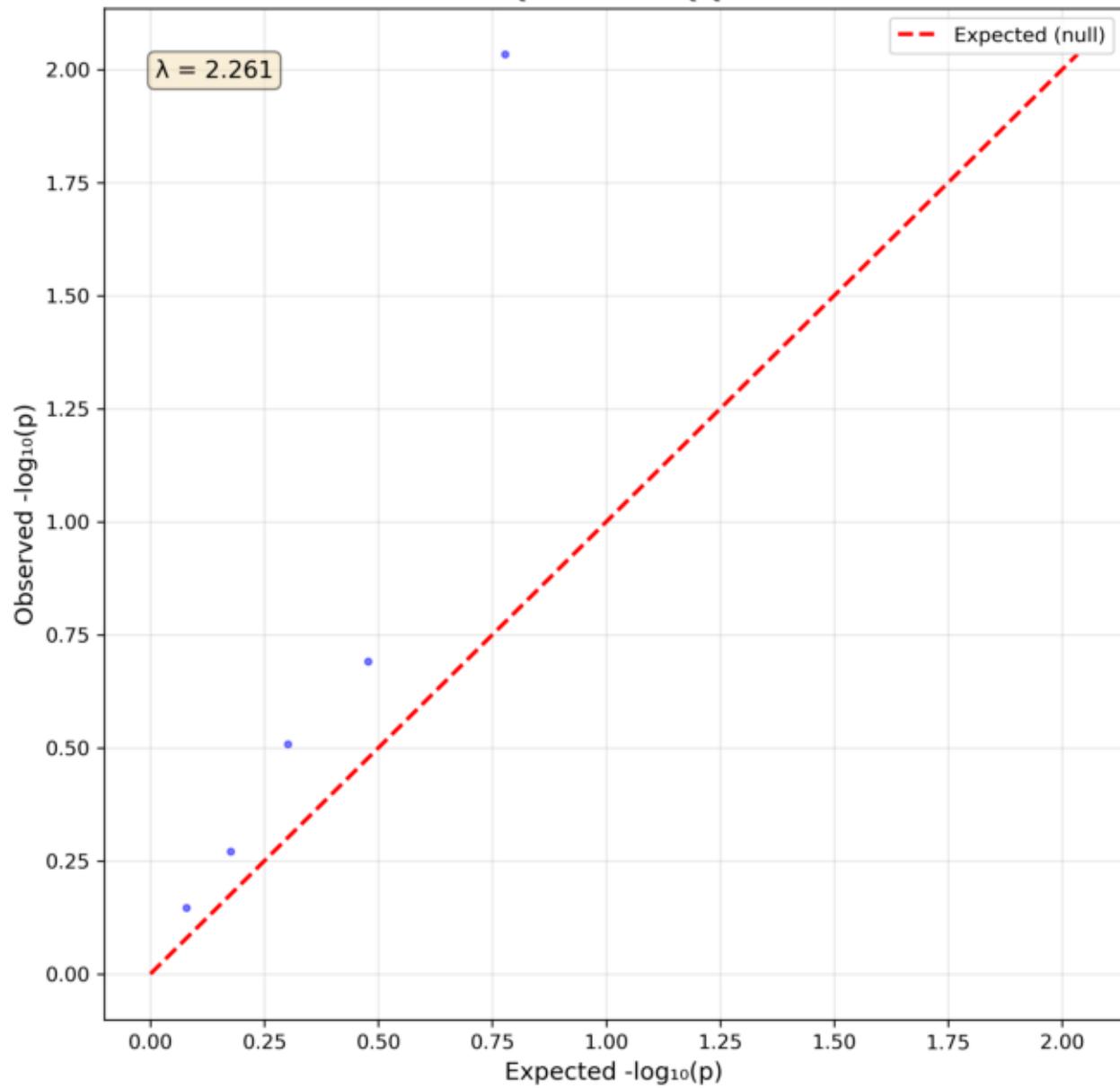
```
Quick smoke tests (synthetic/small data)...
[OK] imports
[OK] calculate_genomic_inflation
[OK] get_pc_covariate_list
[OK] format_gwas_output
[OK] create_summary_report
[OK] save_results
[OK] load_alpha_values
[OK] EDGEAnalysis (continuous, synthetic)
[OK] EDGEAnalysis (binary, synthetic)
Manhattan plot saved to /Users/nicen/edge/edge-gwas/tests/output/quick_manhattan.png
QQ plot saved to /Users/nicen/edge/edge-gwas/tests/output/quick_qq.png
Genomic inflation factor ( $\lambda$ ): 2.261
Alpha distribution plot saved to /Users/nicen/edge/edge-gwas/tests/output/quick_alpha_dist.png
Total alpha values: 5
Alpha statistics:
  Mean: -0.422
  Median: 0.040
  Std: 2.355
  Min: -3.987
  Max: 2.539
[OK] manhattan_plot, qq_plot, plot_alpha_distribution
✓ PLINK2: PLINK v2.0.0-a.7 64-bit (5 Dec 2025)
✓ GCTA: ****
✓ R: R version 4.3.3 (2024-02-29) -- "Angel Food Cake"
✓ R package GENESIS: Installed
✓ R package SNPRelate: Installed
✓ R package gdsfmt: Installed
[OK] check_external_tools
[OK] download_test_files
```

All quick smoke tests passed.

quick\_manhattan.png

Quick test Manhattan



**Quick test QQ**

quick\_alpha\_dist.png

### Distribution of EDGE Alpha Values

