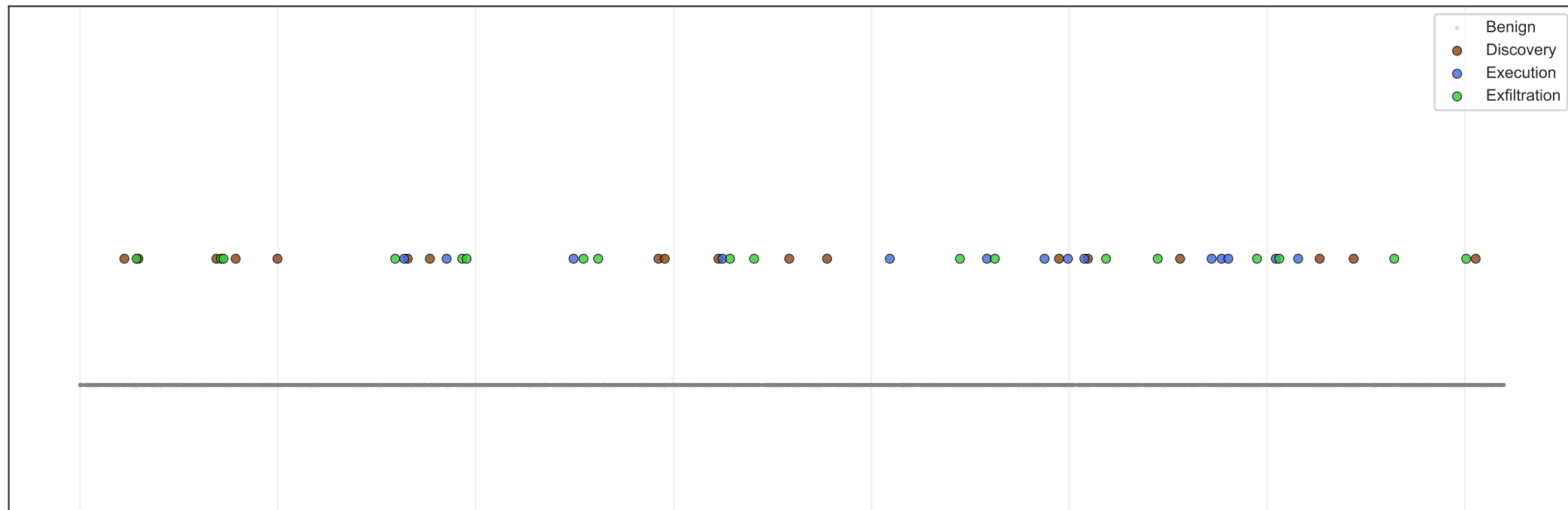
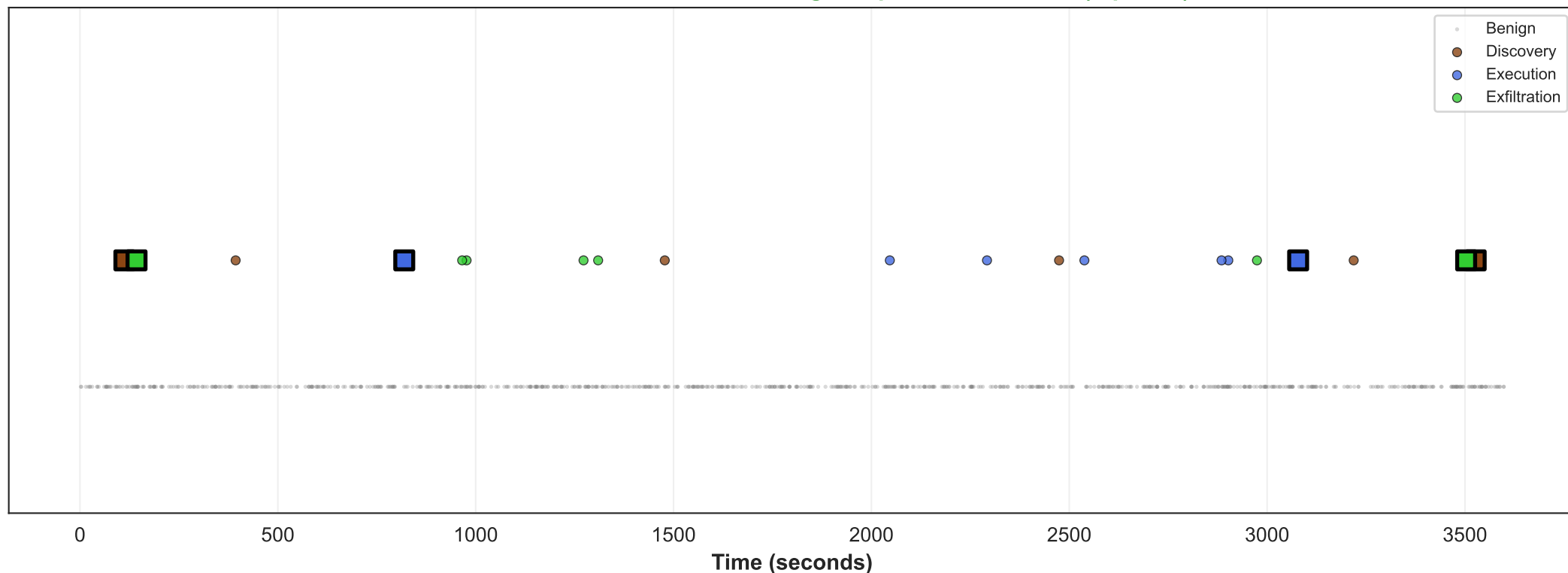


Figure 9.5: Smart Sampling Strategy for Large Datasets
Temporal-Boundary-Preserving Sampling

BEFORE Smart Sampling: 2.6M Events
□ □ Causes Memory Crash / Segmentation Fault



AFTER Smart Sampling: 200K Events (10% benign, 90% malicious budget)
□ Prevents Crashes While Preserving Temporal Boundaries (squares)



Strategy: Preserve first + last event per (Label, Tactic) group to maintain temporal span.
Sample random middle events. Budget: 10% benign (background), 90% malicious (attack focus).
Original event counts shown in legend (not sampled counts).