

Lightning Talk

Monarch Butterfly Roadkill Reduction in Texas using TxDOT Monarch Flight Diverters

James Tracy

Texas A&M

University



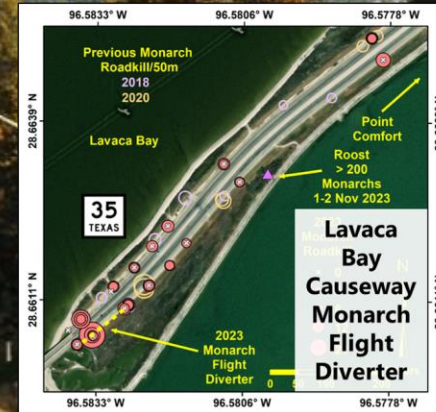
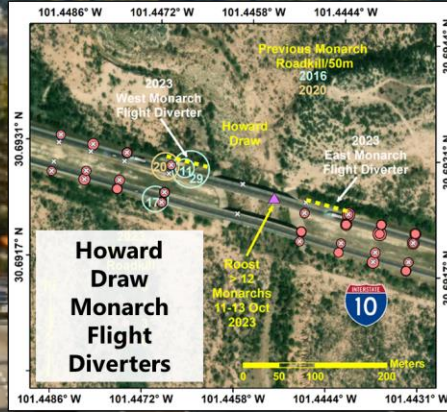
Monarch Flight Diverter (MFD) Texas Sites



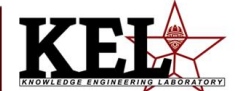
TxDOT Project 0-7022-01
Monarch Conservation
Strategies for Texas Roadways



Texas Roadkill ~ 3% Monarch
Overwintering Population

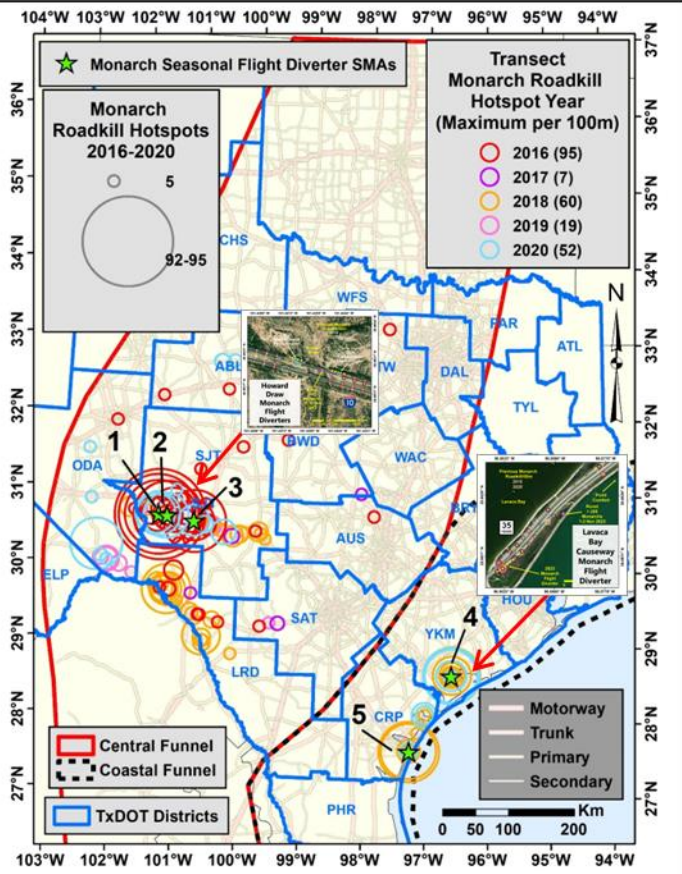


Materials and Pavements



Department of Entomology

Texas Monarch Roadkill Hotspot Density per 100 m



Monarch Flight Diverter
Contracted
16 ft Pole
Installation



Triangular
Slip Base



Texas A&M Transportation Institute
30% Mesh Tarp Hung for 4-Week Oct-Nov
Peak Monarch Migration



Lavaca Bay Causeway
Monarch Flight Diverter
316 ft



Howard Draw- West
Monarch Flight Diverter
209 ft



Howard Draw- East
Monarch Flight Diverter
201 ft

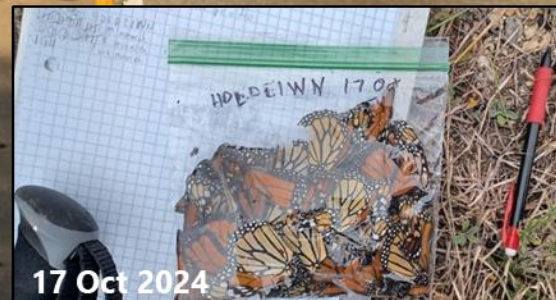


50 m



50 m (55 yd) Roadside Roadkill Transect

HOEDEIWN 17.04



17 Oct 2024

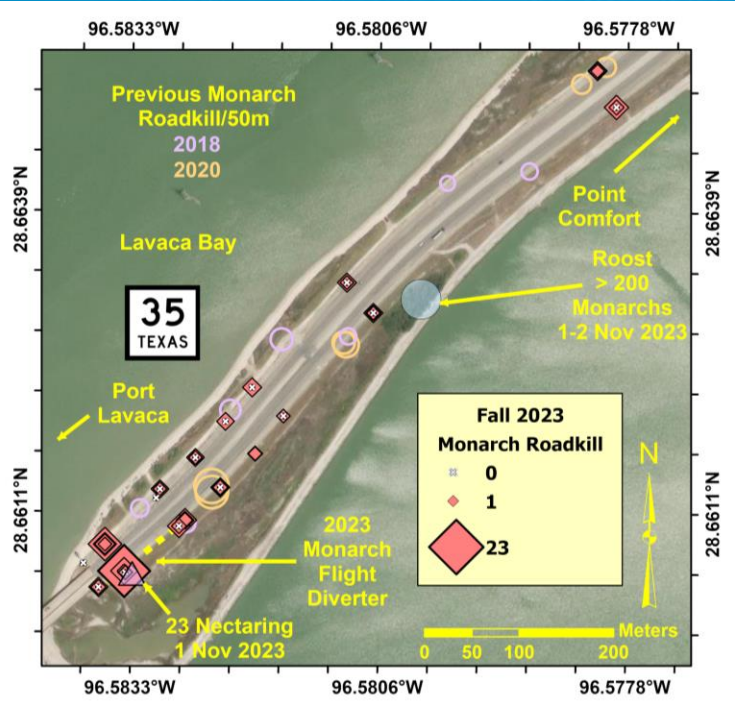


Monarch Observations at Monarch Flight Diverter (MFD) Sites
Texas Agrilife Research - Entomology



ImageFX AI Generated Background Image

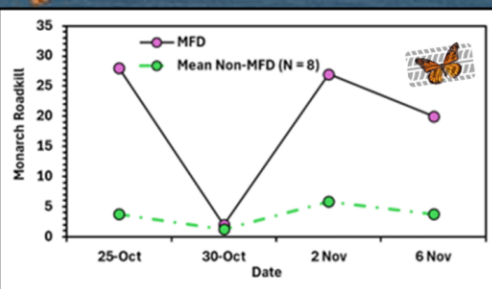
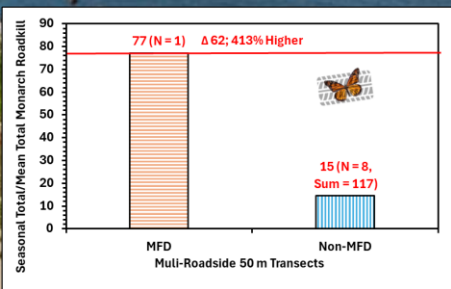
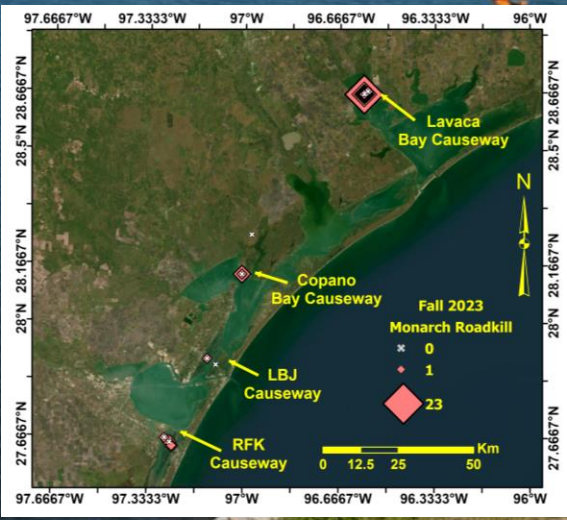
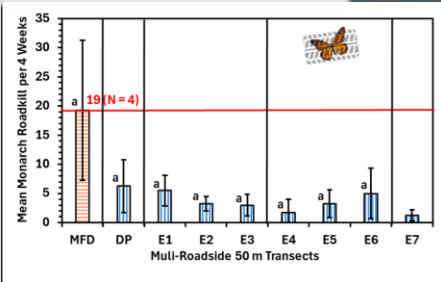
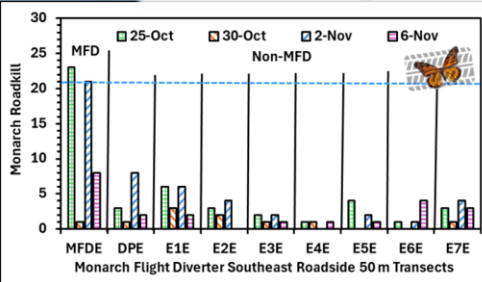
Lavaca Bay Causeway MFD Coastal TX 25 Oct–2 Nov 2023



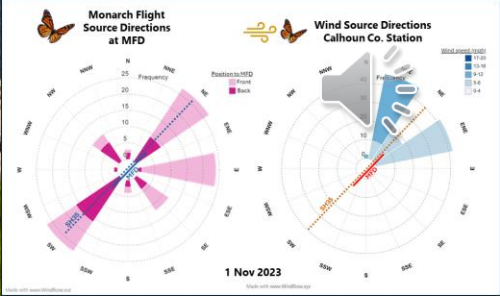
>200 Monarch Roosting in Roadside Tamarisk



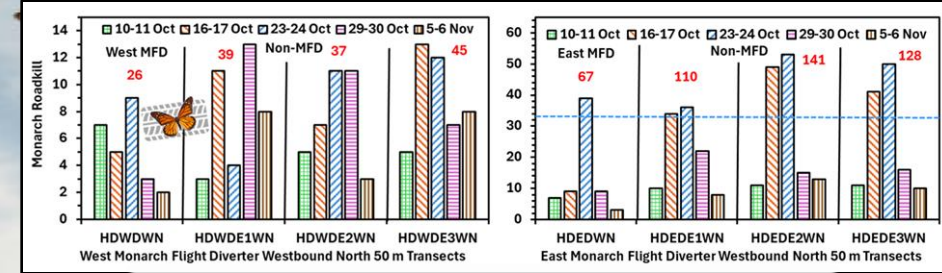
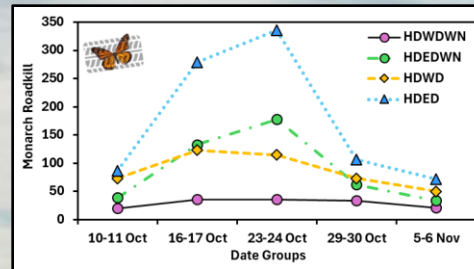
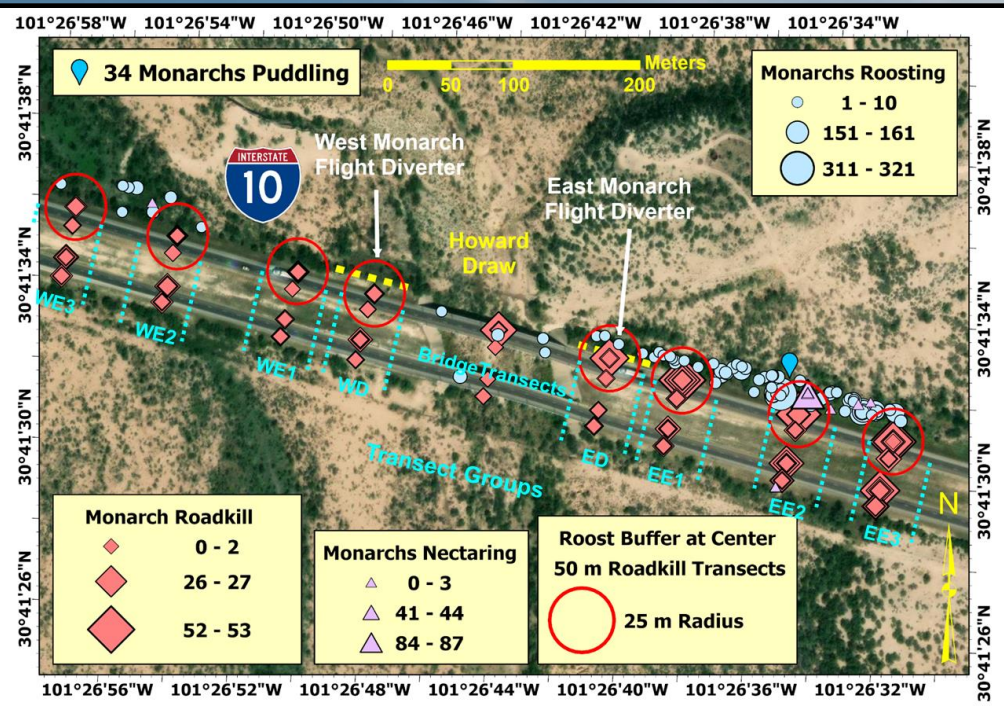
194 Monarch Roadkill for Season Across all 18 Transects



Estimated 62 monarchs more dead per 50 m MFD

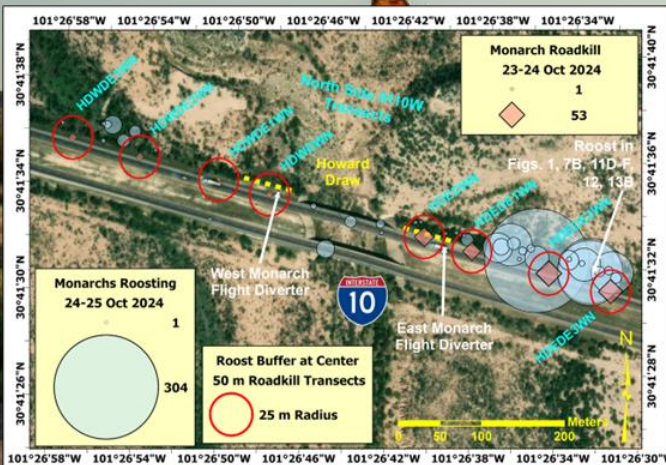
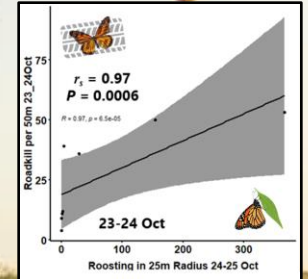
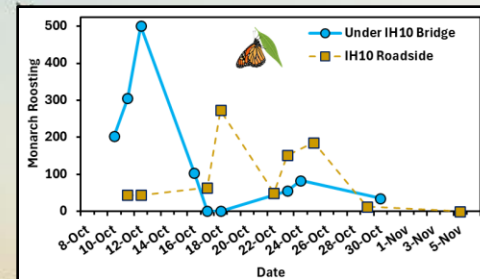
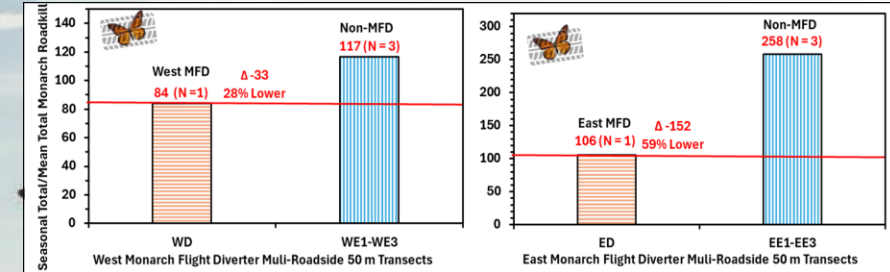


Howard Draw East and West MFDs West TX 10 Oct-6 Nov 2024



1,315 Monarch Roadkill for Season Across all 32 Transects

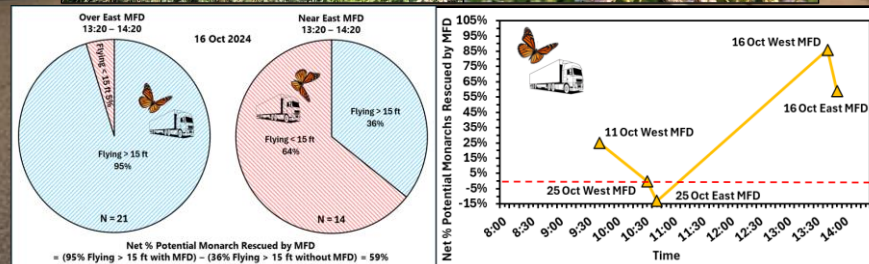
~185 Monarchs Rescued by MFDs over Season ~49% Roadkill Reduction



1,612 monarchs roosting along IH10 24-25 October



Estimated 185 monarchs (49%) rescued from 100 m of two MFDs; 400 m of MFDs should rescue 740 monarchs



TxDOT unmown ROW provides unique roosting and nectaring resources for thousands of migrating monarchs at Howard Draw.

