Overall Decline in Patch Occupancy at Bodie SHP

Patch Occupancy = -0.645*Year + 1330

R² = 0.50, F₁,₁₉ = 19.11, P = 0.00033
Bodie SHP Pop. Trends by Patch Network

**Northern Patches:**
Non-significant decline  
(n = 39, \( P = 0.198 \))
Without 2010 significant decline  
(n = 39, \( P = 0.0692 \))

**Middle Patches:**
Significant decline  
(n = 16, \( P = 0.0133 \))

**Southern Patches:**
Significant decline  
(n = 25, \( P = 8.70 \times 10^{-7} \))
Bodie Hills Survey (2010 data)

Three Regions Examined:

• **Bodie SHP**
  – 41% occupied and in decline
  – ~80 Anthropogenic talus patches surveyed

• **New York Hill**
  – 41% occupied and in decline
  – 17 Anthropogenic talus patches surveyed

• **Bodie Hills proper**
  – 0% occupied
  – 51 Natural talus patches surveyed
Temporal Pattern of Pika Decline in the Bodie Hills, CA

Bodie Hills curve is significantly different from Bodie SHP & NY Hill curves ($P << 0.001$)
Status of Bodie Hills Pikas

- Bodie Hills pika populations suffered a region-wide collapse in the late 20th century.

- Two declining relict populations survive on vulnerable anthropogenic sites: Bodie SHP and New York Hill.