

Abstract

When wildlife and humans live in close proximity there is always a potential for conflict. The ability to identify "hot spots" is a key element in predicting areas where high profile human-wildlife conflicts may occur. The Arizona Game and Fish Department (AGFD) has created a method to use GIS software to spatially display the location of wildlife calls by animal type. Using our Human Wildlife Interaction Database to document the coordinates of conflict calls, we can then use the data in a GIS program to visually display the location of conflicts by animal type. Currently, "hot spots" are in close proximity to golf courses, dry washes, mountains, construction sites and the urban-open space interface. AGFD is currently updating the Human Wildlife Interaction Database to be able to further categorize conflict calls in accordance to our Wildlife Conflicts Policy. Conflicts are assigned a number from 1-3 based on the nature of the call. Once this information is included, the GIS maps will give AGFD a tool to more accurately predict areas of potential human-wildlife conflicts for species of management concern. These hot spots will let us know where to concentrate our attention and efforts and be proactive with education or active removal of problem wildlife.

Human populations are growing and urbanization continues to encroach on wildlife habitat...

Humans + Wildlife = Conflicts

(living in proximity) (potential)

Arizona Game and Fish Department, Mesa Region is using GIS to map locations of wildlife related calls. Current "Hot Spots" are concentrated around:

URBAN INTERFACE



NATURAL WASHES



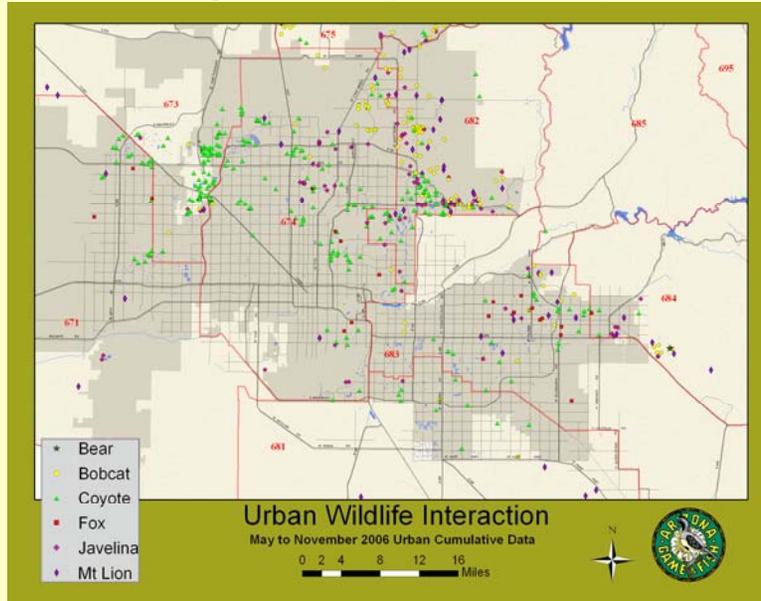
GOLF COURSES

also near large-scale construction sites, dry river beds, and urban parks, lakes and ponds.

Using GIS to Display and Predict Human-Wildlife Conflicts

Darren J. Julian, Jeff Moore, and Tom Hildebrandt

Arizona Game and Fish Department, Mesa Region, 7200 E University Ave, Mesa, AZ 85207



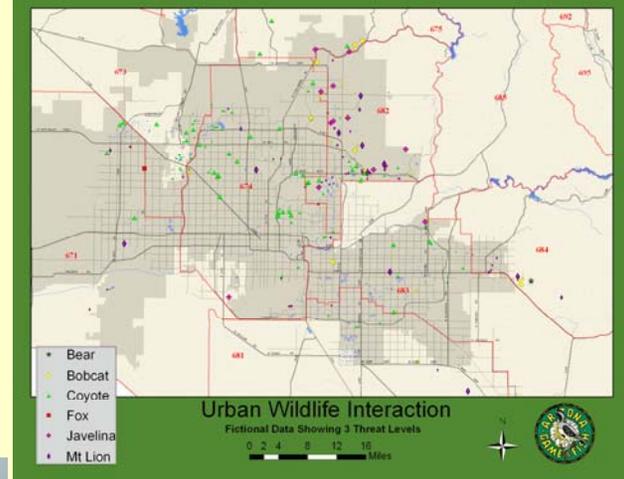
Coordinates are transferred from the Human-Wildlife Interaction Database to ArcGIS 9 on a monthly basis for 6 species

- Management Implications:**
- AGFD can:
- Quickly determine areas of concern
 - Be proactive with public outreach and education
 - Consider pre-emptive removal of aggressive or problem animals



Future Considerations

- Human-Wildlife Interaction Database—upgraded to categorize each call based on a threat level
- GIS Maps will provide more detail
- AGFD will be able to predict areas of potential conflicts
- Comparison studies (year to year, month to month, season to season, etc.)



GIS Map with different font size to show threat level—Level 1 (aggressive or attack) is the largest

