Introduction

Fig. 1: Bioko Island, Equatorial Guinea is among the highest priority sites in Africa for primate conservation. However, cultural preferences and a lack of effective law enforcement has encouraged commercial hunting to supply the Malabo bushmeat market, threatening the survival of Bioko’s seven rare monkey species. The BBPP uses a multidisciplinary approach to combat bushmeat hunting, framing conservation planning within an informed biological, socio-economic, and cultural context.

Importance of Multiple Disciplines

Fig. 2: To inform meaningful policy recommendations, all of the above strategies together are needed to understand the drivers, mechanisms and impacts of the bushmeat trade. Bioko is unique, not only for its rich biodiversity and primate assemblage, but also because the BBPP is able to approach each of these aims in concert.

Understanding Human Use

Fig. 3: Drexel University/BBPP graduate student, Demetrio Bocuma Meñe, is investigating the relationship between bushmeat consumption patterns, socioeconomics, and perceptions towards conservation. Preliminary data suggest that the Fang ethnic group have a higher preference for primate meat (p < 0.05).

Bushmeat Market Surveys

Fig. 4: The BBPP has collected critically important bushmeat market data continuously since 1997. The top panel shows the monthly carcass rates (carcasses/market day) for all taxa; the bottom panel is all primate taxa.

Ecological Niche Models

Fig. 5: BBPP forest surveys have covered much of Bioko’s two protected areas (A). Using these data, the BBPP documented the significant negative impact bushmeat hunting had on monkey populations, and estimated which species are most vulnerable to hunting (B). Pennant’s red colobus (Procolobus pennantii), a species found only on Bioko (C), was the monkey most threatened by hunting.

Translating Science into Policy

Fig. 6: Using forest survey data, the BBPP developed ecological niche models for each of Bioko’s monkey species (A). These models allowed for the identification of primate hotspots, and thus, priority areas for conservation on Bioko (B).

Cultivating a Conservation Culture

Fig. 7: Conservation policy recommendations:

- Develop a management plan for Bioko’s protected areas (PA), emphasizing the southern slope of Bioko.
- Encourage government involvement in PA management.
- Promote enforcement of existing legislation.
- Implement forest patrols in priority conservation areas within PAs.

Fig. 8: The BBPP is cultivating a culture of conservation through citizen empowerment, intensive research, outreach, and education programs, environmental advocacy, and regional collaborations for conservation planning.