

## **RBCMA – OVERVIEW OF PROTECTION PROGRAMME**

The Protection Programme plays a critical role in maintaining the biological health of the Rio Bravo Conservation and Management Area. Several threats have been identified which include hunting, timber theft, ground incursions involving marijuana field cultivations, hardwood and pine savannah forest fires. Programme for Belize has implemented a multi-pronged approach in addressing the major threats outlined which include patrolling, entry controls, passive protection and changing public perceptions.

Patrolling activities include rotational work carried out by the rangers conducting frequent trips in and around the Rio Bravo. Patrolling activities provide pre-deterrent mechanisms due to the visibility of the rangers as well as post-deterrent mechanism subsequent to any intervention that is carried out. Rangers patrol the boundary lines on a monthly basis and frequent more troublesome locations known for illegal activity. They also, by extension, support the management activities by undertaking boundary line clearing, road and bridge maintenance, monitoring exercises, partaking in research activities and assisting in fire management activities.

Programme for Belize has long maintained a policy to hire and provide jobs to individuals of the surrounding communities in an attempt to build support for and further the conservation objectives of the organization. These workers cover a broad spectrum of positions from not only rangers but maintenance, administration, extraction and research personnel as well. The rationale behind this effort has always been and continues to be to advance awareness of the RBCMA, Pfb and the benefits of the area by gathering support and influence from those immediately inside the communities who can reach out and be direct spokespersons on behalf of Pfb.

Protection work on the RBCMA is carried out by the team of rangers, based at Hill Bank and responsible for manning the gates and mounting regular patrols. This work is backed by regular over-flights to detect problems (use of trails, illicit agriculture) from the air. Several interventions are made each year, most seriously involving illicit drug cultivation and timber theft, and the team operates with the Belize Defence Force and Forest Department as and when appropriate. Ranger patrols are organised on a monthly basis to areas deemed to require oversight and the team responds to information of illicit activity as and when required.

The basic protection programme is well-established with reliable funding from the national 'Debt-for-Nature' scheme. The strong points, which must be maintained, are that:

- The gates are permanently manned, establishing a visible presence at the main entry points;
- The team is able to react to emergencies (including fire) at any time;
- Overnight patrols are mounted monthly and four surveillance over-flights are organised per year.
- Infractions are pursued through the legal system as and when necessary.
- Regular training is undertaken and organised in conjunction with Police Department, Forest Department and Fisheries Department and conferring Special Constable Status under the Police Academy Training Program.

Emphasis is placed on making most efficient use of the full range of resources already to hand. The main thrust is to push the resource use programmes into the sensitive areas as ‘passive protection’, essentially demonstrating occupancy of the land. Key areas are:

- For the hardwood forest management, extending forest inventory into the northern ‘roof’ area, the Cacao area between the Booth’s River marshes and the Rio Bravo, Duck Ridge and the forested lands on the south-eastern boundary.
- For the savannah management programme, undertaking pine inventory across both savannahs and establishing one of the fully managed demonstration areas astride the access to the San Felipe savannah.

The rangers are therefore combined with the forestry crew to cover them, so reinforcing security and allowing sharing of resources (notably vehicles and radios) between programmes. Given the protective value inherent this activity counts as patrolling activities. Another area requiring attention is boundary cleaning and demarcation, last done in the remoter sections in the mid-1990s. Again, this activity lends itself to a joint approach between the forestry and ranger teams in association with hardwood and pine inventory.

Patrols *per se* then become supplementary, covering the areas where management programmes are not providing regular ground presence. The policy of mutual reinforcement between field programmes still operates, however. The target of multiple patrols per month, additional to involvement in forestry and savannah management work) is maintained for the wet season and raised by an additional 50%-75% per month for the dry season.

Particular attention is drawn to mounting the dry season patrols to the two savannahs in order to detect and discourage or otherwise address:

- Setting of fires;
- Parrot theft (and monitoring of nest-boxes and known yellow-headed parrot nesting holes);
- Local infestations of cogon grass and pine bark beetle.

Patrols continue to cover areas deemed at risk – attention is therefore given to ensuring that at least two patrols per year check the frontier area (including its approach through Aguas Turbias), Cacao, the northern Duck Ridge and lower Booth’s River area, lower Irish Creek (where the ecotourism programme also plays an important role in maintaining presence) and the south-eastern part of the boundary. Throughout, the general aim is to integrate protection and resource management more closely to make better use of available staff, equipment and transport. Annual and monthly planning is a joint activity, with strong input from the Site Manager as the most senior staff member with direct responsibility for field operations at the site level.

Given the size of the area, the ground presence is thinly spread. Monitoring of effectiveness therefore becomes extremely important, to ensure available resources are directed most strategically. This in turn implies care in reporting. Standard reports include date, time, personnel, route and specific objectives for the patrol. In forested areas, evidence of the following are recorded:

- Entry (e.g. vehicle and horse tracks, foot-prints, cut trails);
- Hunting (e.g. camps, torch batteries, cartridge cases);

- Logging (e.g. stumps, logs, extraction trails);
- NTFP extraction (e.g. cut sabal or palmetto, chicle slash-marks);
- Land clearance within the RBCMA boundaries.

The points made above are also included for savannah areas. In each case the type of illicit use or other observation is noted along with an estimate of its age (> 6 months, 6-1 month, < 1 month). Each separate incident is noted along with its location, by GPS if possible but otherwise as closely approximated as possible. Observations involving hunting will be points but other threats usually affect an area such as a patch of forest or stretch of road – in these cases both the location and the estimated area affected are estimated. The evidence are removed where appropriate (e.g. cartridges and camp rubbish, camp shelters knocked down) to avoid ‘double-counting’ on later patrols.

A formal system is instituted for over-flights, including the specific issues/localities to be verified and the results. Here the emphasis is upon unauthorised entry by vehicles, boundary integrity and forest clearance, extent of fire damage and detection of pine bark beetle outbreaks. Particular attention is given to set flight lines and use of GPS to avoid disorientation for all flights. Photographic documentation is maintained for all locations both on the ground and aerially once located.