

<b>Policy Area:</b> Field Team Operations	<b>Subject:</b> HCV Assessments
<b>Title of Policy:</b> HCV Assessment Field Protocol - Fauna Survey	<b>Number:</b>
<b>Effective Date:</b> 02 February 2013	<b>Page Number:</b>
<b>Approved by:</b> Loy Jones	

**1. Rationale or background to policy:** All field surveys shall be conducted following the guidance provided in the HCV Toolkit Indonesia (2008). This protocol is intended to provide additional details related to field survey methodology that are not specified in the Toolkit to ensure consistency in data collection. The objectives of fauna field survey are to: 1) confirm the presence of HCV 1.2 & 1.3 species determined to be likely or potentially present during the pre-assessment in the remaining natural forest areas; 2) assess the presence of landscape indicator species such as top-level predators, groups of birds that occupy a range of niches and are sensitive to disturbance; 3) examine the ecological integrity and habitat value of remnant forest and other natural areas with a focus on HCV 1.2 & 1.3 fauna species; 4) assess the population viability of HCV 1.3 species confirmed or considered likely present; 5) determine condition of areas where connectivity between remnant natural areas within the plantation has been lost or is currently tenuous in order to assess feasibility of re-establishing connectivity.

The large area to be covered and cryptic nature of many types of fauna requires using a rapid assessment method that combines sampling on the ground and interview of local communities (especially hunters). For fauna surveys, mammals, birds and herpetofauna will be covered.

Species identifications for select taxa will be made in the field, supplemented with digital photographic documentation whenever possible. Species of concern under HCV 1.2 and 1.3 shall be given highest priority for identification to species level using experience of the survey team and field manuals. Desk analysis of the photographs will be done after the survey if field species identification is not possible.

Survey priority in the field shall be given to the following vegetation types in order of importance:

- a. Remnant natural forest areas in relatively good condition
- b. Degraded/secondary forest
- c. Agroforests (rubber or non-rubber)
- d. Active or recently abandoned ladang agriculture
- e. Cleared but unplanted areas

**2. Policy Statement:** Members of the ecology field assessment team will operate in a unified approach to ensure that field protocols for data collection are consistently followed in the field and that all required data are collected and accurately recorded precisely in the provided datasheets. While the Field Team Leader and the Ecology Assistant has the ultimate responsibility to ensure this is carried out, ecology field team members especially the fauna specialists have equal responsibility to ensure their performance meets all of the requirements.

**3. Procedures:** Prior to and during HCV field assessments all teams shall ensure that the following occur:

Prior to survey

- a. Review the pre-assessment report for the concession in question, in particular pre-assessment findings for HCV 1, 2 and 3, as well as recommendations for the main assessment fieldwork.
- b. Print and become familiar with list of HCV 1.2 and 1.3 fauna species likely or potentially present identified in the pre-assessment.
- c. Prepare or obtain a published picture guide of HCV 1.2 and 1.3 species to be used during community interviews.
- d. Obtain maps of the concession with relevant information (land cover, forest type, rivers and other water bodies, slope, soils, peat depths, location of villages, etc.) from the Data Management Team.
- e. Determine preliminary sampling locations (stratified sampling) for each land/forest cover type in the order of priority mentioned previously in this document. Fauna observations should be conducted at the same locations as the flora transects, as well as likely habitats of HCV 1.2 and 1.3 fauna species.
- f. Prepare all required equipment and tools, including:
  - o GPS
  - o Map of study area
  - o Binoculars
  - o Digital camera with zoom lens
  - o Headlamp
  - o Powerful flashlight for spotlighting
  - o Pictorial guide of HCV 1.2 and 1.3 species
  - o Datasheet and questionnaire for community interview
  - o Machete
  - o Insect net
  - o Datasheet, stationery, clipboard.
  - o Extra batteries
  - o Formaldehyde

During field survey

Using the list of HCV 1.2 and 1.3 species prepared, a broad survey will be employed to identify the presence of these species as well as to describe the quality of habitat to required support these species. All fauna species encountered will be recorded regardless of their conservation status in order to understand the overall fauna composition and habitat quality. Interview of local people will be conducted in villages closest to the concession area, preferably involving hunters that have intimate knowledge of fauna in the area. A picture guide should be used to facilitate the interviews and results shall be recorded in the “fauna community interview data sheet”.

Before each day’s survey, tracking should be turned on in the handheld GPS unit. Also, a photograph of the GPS unit showing the coordinates and time shall be taken with the

digital camera that will be used with the GPS unit to allow for geo-coding of the photographs.

Only the provided datasheets should be used for recording data, and all categories of data included in the datasheets need to be completed. A notebook can be used for any particular notes to be made relevant to the assessment that does not fit the datasheet format.

Observations will be conducted at the flora transect locations in addition to likely habitats of HCV 1.2 and 1.3 species likely or potentially present. Specific field procedures for each fauna taxa to be surveyed are described below.

a. Mammals

- Irregular line transect of suitable distance (usually up to 1 km) will be employed to record medium to large sized mammals (particularly primates). Survey will be conducted by walking along existing forest path (if any), along the flora survey transect or while travelling through the concession area by foot or car/boat.
- Survey will be done twice: once in the morning between 6 am and 10 am to record diurnal mammals; and second at night start between 6 pm and 10 pm to observe nocturnal mammals. During the night survey, spotlighting will be performed.
- Direct observations of mammals, as well as indirect indicators such skeletal remains, footprints, scratch marks, nests and feces, will be used to confirm the presence of HCV 1.2 and 1.3 species.
- Whenever possible, photographs of fauna are taken as evidence and confirmation of species identification.

b. Birds

- Bird survey will be conducted in the same manner as the mammal survey, except that there will not be a night-time survey.
- All individuals observed and/or heard will be recorded including the following information: species name, numbers of individuals, habitat type, GPS coordinates, and flying singly or in flocks.
- The presence of critical bird habitats for breeding, feeding and nesting should also be specifically observed and recorded.

c. Herpetofauna

- Observations will be carried out twice at 6-10 am and 6-12 pm.
- Spotlighting will be conducted in streams and stream sides and along forest paths. Darts and blow pipe can be also employed to capture small gecko and lizards if needed.
- Various herpetofauna microhabitats (i.e., puddles, streams pools, tree holes, forest floor with significant leaf litter cover, tree buttress, rotten logs, epiphytes, tree fern and others) should be thoroughly examined with help from a local guide.
- Encountered individuals will be captured by hands and/or sticks for standard biometric measurement and photographic documentation. Measurement data

could be recorded or in a separate field notebook but the standard fauna datasheet must be completed.

- All identified individuals should be released. Unidentified individuals or new records will be preserved in formaldehyde for further investigation at a suitable zoology lab.

Appendix 1.

**Fauna Data Sheet (HCV 1.2 and HCV 1.3 Species)**

Concession name:		Date:	
Observer(s):		Weather:	
Location (village / local name for the location):			

No.	Species or common name	GPS coordinates (or way point number)	Method of Observation <sup>1</sup>	Habitat type and quality <sup>2</sup>	Presence of key habitat features <sup>3</sup>	Photo code	Notes

<sup>1</sup> Direct sighting, calls, scat, fur, marking, scent, etc.

<sup>2</sup> Forest condition, causes, frequency and severity of disturbance, etc.

<sup>3</sup> Include rivers, lakes, ponds, wetlands, caves, old trees with hollows, etc.

Appendix 2

**Fauna Community Interview Data Sheet**

Concession name:		Date:	
Interviewer:		Location (village name):	
Interviewees:			

No.	Species name	Abundance (1-5) <sup>1</sup>	Habitat type and quality <sup>2</sup>	Location <sup>3</sup>	Notes

<sup>1</sup> Perceived abundance (qualitative): 1= very rare; 2 = rare; 3 = sometimes countered; 4 = rare; 5 = very rare  
<sup>2</sup> Habitat type and forest condition where the species are encountered (including Acacia plantation)  
<sup>3</sup> Locations where the species are encountered (indicate on map or provide local location name)