GFECP
GUIANAS FORESTS & ENVIRONMENTAL CONSERVATION PROJECT

The Sea Turtles of Suriname 2001 Project:


Prepared by:

E. Goverse and M.L. Hilterman

In collaboration with the Foundation for Nature Conservation Suriname (STINASU).

March 2002

This Study was commissioned by the World Wildlife Fund – Guianas Forests and Environmental Conservation Project (GFECP). The views expressed herein are those of the author(s) and do not necessarily reflect the views of the World Wildlife Fund.
GFEC\textsuperscript{P}

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\textit{E. Goverse and M.L. Hilterman}

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This report should be cited as follows:

Acknowledgements

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Introduction

The Surinam coast is part of the extensive tropical mud coast between the Amazon River (Brazil) and the Orinoco River (Venezuela) (Augustinus 1978). Only the smallest sediment parts from the Amazon River are deposited in Suriname. Extensive mud banks on the Surinam coast are shifting along the shore in a westward direction. Deposition of ‘sling-mud’ on the one hand and of sand and shells on the other takes place separately. It is believed that most of the sand comes from French Guiana, but that the Marowijne contributes some sand too (Schulz 1975).

Because of the highly dynamic shoreline, a yearly aerial survey is needed to monitor the changes. New nesting beaches can also be located by this technique. The aerial survey takes place in the mid of the nesting season of the leatherback turtle (*Dermochelys coriacea*) and is done in the morning during low tide. The aerial survey methodology is described by Schroeder and Murphy (1999). Only the part between the Suriname River and the Marowijne River is monitored because here the nesting beaches of Suriname are found.

The first aerial survey by Biotopic, in collaboration with STINASU, was carried out on the 2nd of June 1997, the second survey on the 7th of July 1999. In 2000, the survey took place on the 10th of July, a rainy day. Unfortunately, the Global Position System (GPS) on board of the plane failed just after departure. The most recent survey was done in the morning of the 7th of June 2001. Each aerial survey, a photo reportage is made with different types of camera’s and lenses, by different people. The results of 1997 and 1999 were reported in those years (Biotopic 1997, 2000). This report includes a selection of photos of all these aerial surveys in order to make a comparison possible, starting with the most recent one. In this report, the latest names of locations and sections are used. Until the year 1999, Samsambo was called ‘Spit’. In 2000, Kolukumbo was temporarily named BGW-III, which means Far Section West.
General description

Galibi area
During the aerial survey of 2001, one camera failed before the survey was finished. Because of this, very few pictures of Babunsanti to Galibi could be made. The pictures of 2000 and before, however, give a good impression of the area as these beaches are more or less stable. The photos 49-50 and 139-140 show different parts of the villages Langamankondre and Christiaankondre, named in this report Galibi. The photos 51 and 142 show the campsite of NB, and 141 the sandy bay next to this camp. The NB camp marks the border of the Galibi Nature Reserve. The fallen lighthouse can be seen on the photos 97 and 143-144. Just after the lighthouse, photos 52, 98 and 143, the first nesting beach is found. It is used mainly by green turtles, that nest between the vegetation. Sporadically, leatherback tracks are seen.

Babunsanti
The beaches of Babunsanti are more or less stable and are shown on the photos 1, 52-59, 99-104, and 146-152. Babunsanti is split into the parts ‘Pruimeboom’ (PB) and ‘Babunsanti’ (BS), which are divided into smaller sections of about 1.5 kilometer. The situation does not differ much between the years, except for the border area between the sections PB-I and PB-II (see photos 54 and 55, year 2000). In 2000, a creek was formed here. Before the nesting season of 2001, the creek was blocked by deposited sand. At the northern end of Babunsanti, the section Thomas is present on the photos 2-3, 60 and 153, formerly known as Eillanti. The beaches of Babunsanti are used by high numbers of green turtles (Chelonian mydas), leatherback turtles, and low numbers of olive ridley (Lepidochelys olivacea) turtles.

Samsambo
The formation of Samsambo took place in few years time. In 1997 (photos 155-162), Samsambo was a large sandbank. After two years, year 1999, the vegetation had started to grow but some parts were still highly dynamic (photos 106-116). In 2000, the beach was more or less stable by the formation of a large mud bank in front of the beach, except for the east side (photos 61-72). In this year, STINASU has built a campsite on Samsambo in order to make monitoring of nesting leatherbacks possible. In 2001, Samsambo had lost its importance as a high density nesting beach due to growth of the mud bank and the rapid growth of vegetation (photos 4-13). In addition, black mangrove had started to grow on the mud.

Kolukumbo
In 2000, a beach was discovered few kilometres west of Samsambo (photos 73-77). The beach was newly formed and during washed over during spring tides. Before the nesting season of 2001, the beach had become high enough for not being washed over anymore by spring tides (photos 14-17). The average width of the beach is over twenty metres. The beach is used by exceptionally high numbers of leatherbacks for nesting. On the east side, mud has started to deposit in the course of the 2001 nesting season.

Wia Wia
In the whole area from Wia Wia to the present location of Matapica, no suitable nesting beaches can be found (photos 18-26, 79-82, 117-120, and 163-165). Some parts of Wia Wia contain sand stretches and mud banks. In 2001, tracks were located on some sandbanks. These sandbanks were still totally washed over during spring tides.

Matapica
Matapica is eroding at the east side and sand deposition takes place on the west side. Therefore, Matapica is moving to the west with an average speed of approximately 1 to 1.5 kilometer per year. Photos 175-176 (1997) show Matapica in front of the Warapa creek. On photo 125, from 1999, Matapica is still in front of the creek but the vegetation is almost gone, which indicates erosion. On photo 84 (2000) a stretch of sand is still in front of the creek. Later in this nesting season, the Warapa creek became connected with the sea again (photos 31-32 of year 2001).

Diana Beach
This beach (photos 44-46, 95, 135, 136, 178) is getting increasingly important for nesting sea turtles, especially for the olive ridley. In 2001, STINASU has built a camp here during the nesting season.
Braamspunt
Braamspunt shows some changes every year. In 1997, Braamspunt was a sand ridge with mud behind it (photos 179-180). Only a few houses were built here by shrimp fishermen. In 1999, more sand was deposited and the settlement looks more like a small village (photos 137-138). Except from some more growth of vegetation, the situation compared for the years 2000 and 2001 seems to be quite similar (see photos 47-48, and 96). The beach is sporadically visited by leatherback sea turtles.
Aerial Survey of the Surinam Coastline between the Marowijne and Suriname River

2001
1. Babunsanti, section BS-II
2. Babunsanti, section Thomas
3. Babunsanti, section Thomas
4. Samsambo, section East
5. Samsambo, section East
6. Samsambo, section East
7. Samsambo, section Mid-I
8. Samsambo, section Mid-II
9. Samsambo, section Mid-II
10. Samsambo, section Mid-II and West
11. Samsambo, section West
12. Samsambo, section BGW-I
13. Samsambo, section BGW-I

14. Kolukumbo

15. Kolukumbo

16. Kolukumbo

17. West of Kolukumbo

18. Wia Wia, stretch of sand
19. Wia Wia, stretch of sand

20. Wia Wia, stretch of sand

21. Wia Wia, sandbank

22. Wia Wia, sandbank

23. Wia Wia, sandbank

24. Wia Wia, sandbank
25. Wia Wia, sandbank
26. Wia Wia, sandbank
27. Impression of the muddy coast
28. New forest growth on mud bank
29. Eroded forest edge
30. Matapica Canal
37. Matapica, campsite, border of sections 4 and 5
38. Matapica, campsite, border of sections 4 and 5
39. Matapica, campsite, border of sections 5 and 6
40. Matapica, section 6, old shrimp-fishing camp
41. Matapica, section 6
42. Matapica, section 6
43. Matapica, section 6

44. Diana Beach, section 1

45. Diana Beach, camp, border sections 3 and 4

46. Diana Beach, section 5

47. Braamspunt

48. Braamspunt
Aerial Survey of the Surinam Coastline between the Marowijne and Suriname River

2000
49. Galibi

50. Galibi

51. NB camp site, border Galibi Nature Reserve

52. Babunsanti, section PB-III

53. Babunsanti, section PB-II

54. Babunsanti, border sections PB-I and PB-II
55. Babunsanti, border sections PB-I and PB-II

56. Babunsanti, campsite, border PB-I and BS-I

57. Babunsanti, campsite, border PB-I and BS-I

58. Babunsanti, border sections BS-I and BS-II

59. Babunsanti, section BS-II

60. Babunsanti, section Thomas
61. Samsambo, section East
62. Samsambo, section East
63. Samsambo, section Parwa
64. Samsambo, section Mid-I
65. Samsambo, section Mid-I
66. Samsambo, campsite, section Mid-II
67. Samsambo, campsite, section Mid-I
68. Samsambo, section Mid-I
69. Samsambo, section Mid-I
70. Samsambo, section Mid-I
71. Samsambo, section West
72. Samsambo, border sections West and BGW-I
73. Kolukumbo

74. Kolukumbo

75. Kolukumbo

76. Kolukumbo

77. Kolukumbo

78. Impression of the muddy coast
79. Wia Wia, stretch of sand

80. Wia Wia, sandbank

81. Wia Wia, sandbank

82. Wia Wia, mud flat with leatherback track

83. Stretch of sand west of Matapica Canal

84. Matapica, Warapa creek, section 1
85. Matapica, section 1
86. Matapica, section 2
87. Matapica, section 4
88. Matapica, campsite, border of sections 4 and 5
89. Matapica, campsite, border of sections 4 and 5
90. Matapica, section 5
91. Matapica, campsite, border of sections 5 and 6

92. Matapica, section 6

93. Matapica, section 6

94. Matapica, section 6

95. Diana Beach, section 1

96. Braamspunt
Aerial Survey of the Surinam Coastline between the Marowijne and Suriname River

1999
97. Lighthouse Galibi

98. East of lighthouse Galibi

99. Babunsanti, section PB-III

100. Babunsanti, section PB-II

101. Babunsanti, section PB-I

102. Babunsanti, border sections PB-I and BS-I
103. Babunsanti, section BS-I

104. Babunsanti, section BS-II

105. Babunsanti, border sections BS-II and Thomas

106. Samsambo, section East

107. Samsambo, section East

108. Samsambo, section East
109. Samsambo, section Mid-I

10. Samsambo, section Mid-II

111. Samsambo, section Mid-II

112. Samsambo, section Mid-II

113. Samsambo, section Mid-II

114. Samsambo, section West
115. Samsambo, section BGW-I

116. Samsambo, section BGW-I

117. Wia Wia

118. Wia Wia, stretch of sand

119. Wia Wia, stretch of sand

120. Wia Wia, stretch of sand
121. Impression of the muddy coast

122. Impression of the muddy coast

123. Impression of the muddy coast

124. Impression of the muddy coast

125. Matapica, Warapa creek, section 1

126. Matapica, section 1
133. Matapica, section 6
134. Matapica, section 6

135. Diana Beach
136. Diana Beach

137. Braamspunt
138. Braamspunt
Aerial Survey of the Surinam Coastline between the Marowijne and Suriname River

1997
139. Galibi

140. Galibi

141. South of NB campsite

142. NB campsite, border Galibi Nature Reserve

143. Lighthouse Galibi

144. Lighthouse Galibi
151. Babunsanti, section BS-I

152. Babunsanti, section BS-N

153. Babunsanti, section Thomas

154. Babunsanti, section Thomas

155. Samsambo, section East

156. Samsambo, section East
157. Samsambo, section Parwa

158. Samsambo, section Mid-I

159. Samsambo, section Mid-I

160. Samsambo, section Mid-I

161. Samsambo, section West

162. Samsambo, section BGW-I
163. Wia Wia, stretch of sand
164. Wia Wia, sandbank
165. Wia Wia, sandbank
166. Impression of the muddy coast
167. Motcreek
168. Stretch of sand west of Motcreek
175. Matapica, Warapa creek

176. Matapica, Warapa creek

177. Matapica

178. Diana Beach

179. Braamspunt

180. Braamspunt
### GPS coordinates 2001

<table>
<thead>
<tr>
<th>North</th>
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<th>Location</th>
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<td>05 45 25</td>
<td>053 54 10</td>
<td>Marowijne River</td>
</tr>
<tr>
<td>05 50 66</td>
<td>054 03 90</td>
<td>Samsambo</td>
</tr>
<tr>
<td>05 51 36</td>
<td>054 07 63</td>
<td>Kolukumbo</td>
</tr>
<tr>
<td>05 53 42</td>
<td>054 13 52</td>
<td>Wia Wia, trees with sand in between</td>
</tr>
<tr>
<td>05 54 16</td>
<td>054 15 89</td>
<td>Wia Wia, stretch of sand</td>
</tr>
<tr>
<td>05 54 39</td>
<td>054 16 19</td>
<td>Wia Wia, mud bank</td>
</tr>
<tr>
<td>05 54 94</td>
<td>054 18 19</td>
<td>Wia Wia, mud bank</td>
</tr>
<tr>
<td>05 55 38</td>
<td>054 19 80</td>
<td>Wia Wia, mud bank</td>
</tr>
<tr>
<td>05 55 37</td>
<td>054 20 00</td>
<td>Wia Wia, stretch of sand</td>
</tr>
<tr>
<td>05 59 07</td>
<td>054 43 37</td>
<td>Oranje creek</td>
</tr>
<tr>
<td>05 59 25</td>
<td>054 45 65</td>
<td>Motcreek</td>
</tr>
<tr>
<td>05 59 35</td>
<td>054 47 86</td>
<td>Krofajapasie</td>
</tr>
<tr>
<td>05 59 37</td>
<td>054 48 76</td>
<td>Matapica Canal</td>
</tr>
<tr>
<td>05 59 41</td>
<td>054 51 47</td>
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</tr>
<tr>
<td>05 59 66</td>
<td>054 54 69</td>
<td>Warapa creek</td>
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<td>05 59 83</td>
<td>054 59 50</td>
<td>Matapica beach</td>
</tr>
<tr>
<td>05 59 84</td>
<td>055 01 05</td>
<td>Diana Beach</td>
</tr>
<tr>
<td>05 58 80</td>
<td>055 08 14</td>
<td>Diana Beach</td>
</tr>
<tr>
<td>05 56 36</td>
<td>055 10 26</td>
<td>Braamspunt</td>
</tr>
<tr>
<td>05 56 33</td>
<td>055 10 29</td>
<td>Braamspunt</td>
</tr>
<tr>
<td>05 48 68</td>
<td>055 11 39</td>
<td>Paramaribo</td>
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*GPS coordinates recorded during the aerial survey on June 7th 2001 with the board GPS.*

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<td>054 00 416</td>
<td>Babunsanti, campsite</td>
<td>F</td>
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<tr>
<td>05 47 637</td>
<td>054 00 462</td>
<td>Babunsanti, research building</td>
<td>F</td>
</tr>
<tr>
<td>05 48 835</td>
<td>054 00 845</td>
<td>Babunsanti, section BS-N/ mangroves</td>
<td>B</td>
</tr>
<tr>
<td>05 49 550</td>
<td>054 01 049</td>
<td>Babunsanti, section Thomas, campsite</td>
<td>B</td>
</tr>
<tr>
<td>05 50 033</td>
<td>054 01 490</td>
<td>Babunsanti, section Thomas, western side</td>
<td>B</td>
</tr>
<tr>
<td>05 50 419</td>
<td>054 01 860</td>
<td>Samsambo, start section East</td>
<td>B</td>
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<td>05 50 553</td>
<td>054 02 875</td>
<td>Samsambo, section East/Parwa</td>
<td>B</td>
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<tr>
<td>05 50 570</td>
<td>054 03 600</td>
<td>Samsambo, section Parwa/Mid-I</td>
<td>B</td>
</tr>
<tr>
<td>05 50 808</td>
<td>054 04 701</td>
<td>Samsambo, section Mid-I/Mid-II</td>
<td>B</td>
</tr>
<tr>
<td>05 50 812</td>
<td>054 04 875</td>
<td>Samsambo section Mid-I, campsite</td>
<td>F</td>
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<td>05 51 075</td>
<td>054 05 599</td>
<td>Samsambo, section Mid-II/West</td>
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<td>05 51 219</td>
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<td>B</td>
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<td>05 51 215</td>
<td>054 06 961</td>
<td>Samsambo, section BGW-I/BGW-II</td>
<td>B</td>
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<tr>
<td>05 51 463</td>
<td>054 08 053</td>
<td>Kolukumbo, campsite</td>
<td>F</td>
</tr>
<tr>
<td>05 51 763</td>
<td>054 08 756</td>
<td>Kolukumbo, end at western side</td>
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*GPS coordinates recorded by foot (F) or boat (B) with the Garmin GPS at the 27th of June 2001.*
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<td>F</td>
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<td>054 56 371</td>
<td>Matapica, section II/III</td>
<td>B</td>
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<td>05 59 598</td>
<td>054 56 575</td>
<td>Matapica, section III</td>
<td>B</td>
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<td>05 59 603</td>
<td>054 56 729</td>
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<td>B</td>
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<td>05 59 606</td>
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<td>Matapica, section III</td>
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<tr>
<td>05 59 618</td>
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<td>05 59 591</td>
<td>055 02 947</td>
<td>Diana Beach, section I/II</td>
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<td>Diana Beach, section II/III</td>
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<td>05 59 451</td>
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GPS coordinates recorded by boat (B) or foot (F) with the Garmin GPS at the 23rd of July 2001.

References


