

Flat Rocks Site – Part 2 – The Problems

Site #16 on the Strzelecki Taxonomy Map

Anyone who has visited the Flat Rocks site will be aware of the greatest logistic problem facing the Dinosaur Dreaming crew – the tide. The main part of the fossil layer is situated on the shore platform and is inundated daily at high tide. This means that excavations can only take place three to four hours either side of low tide. Low tide times advance approximately an hour each day, so the crew has to work within these limitations. When low tide is in the morning the crew arrives at the crack of dawn and works until the tide returns and covers the site. An afternoon low tide means the crew doesn't arrive until three to four hours before low tide and works until "light stops play".

Apart from working at low tides, the other problem is the angle of the bedding plane of the rocks at the site. The cliff above the fossil layer reveals the tilted beds, from top left to bottom right, at an angle of about 12° to 14° (see below). This means that the fossil layer also dips down under the shore platform. The fossil layer continues in a northerly direction, parallel with the cliff face, but for every metre the layer continues north it becomes around 20 centimetres deeper under the overlying sandstone.

Because the fossil layer is too large to expose each day, an area roughly five metres by two metres is designated at the commencement of each field season. Each day during the dig the crew arrive on site and begin the laborious task of uncovering the designated excavation area. This usually involves pumping out any water that has accumulated during the previous high tide and then digging out the wet sand that has been transported into the excavations by the tide. This process can take up to one and a half hours to complete before the fossil layer is uncovered. Then it is a race against time to remove as much fossil layer, safely and carefully, as possible before the next high tide comes in and inundates the excavations once more.

Next month – some of the wonderful fossils discovered at the Flat Rocks site.



Cliff face at Flat Rocks site showing tilted bedding. Photographer: Lesley Kool



Pumping out the water at the start of each day. Photographer: Lesley Kool



Digging the sand off the fossil layer. Photographer: Lesley Kool



Excavating a large block of fossil layer. Photographer: Lesley Kool