



Sandwatch Database User's Guide (Version 1.3)

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General Instructions

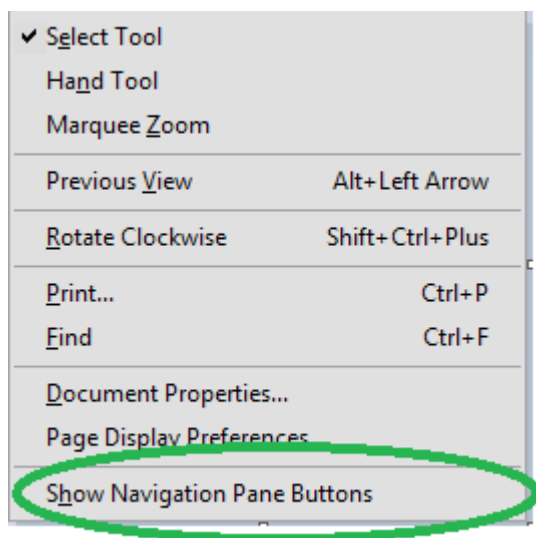
Access to the Sandwatch database requires a username and password. If you are a member of a Sandwatch group access can be arranged through your Group Leader. Otherwise to gain access send a request to sandwatchdatabase@gmail.com.

Using the Guide

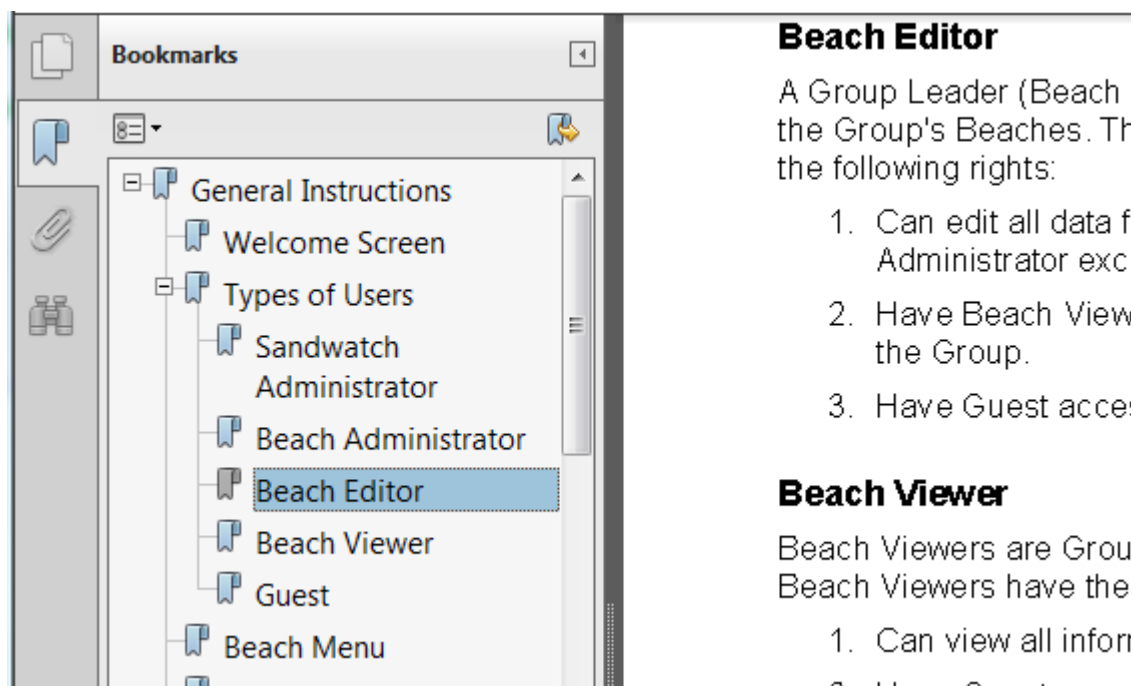
This guide is in PDF format. When you access it through your browser look for these symbols in the top left of your screen:



If these symbols are not visible, right click the screen to get the following menu:



Select Show Navigation Pane Buttons. The circled symbol is for bookmarks. If you click it you will get a set of bookmarks that looks like a table of contents. From it you can access any topic in the guide.



If you have a slow internet connection you may want to save the guide and open it with Adobe Reader. You will then not have to download it each time you want to access a topic. Since the database and software are updated from time to time you may want to download and re-save a copy once in a while when you have a good connection.

Welcome Screen

After logging in you will see the welcome screen:



If you have logged in before beaches you have recently viewed will be listed on the right hand side. If you want to view or edit one of those beaches just click on the beach name. This list is saved in a cookie. If you clear cookies in your browser the list will be deleted.

Otherwise to access a beach first select the country from the Select country dropdown list. To move quickly through the list enter the first letter of the country name. Greyed out countries have no beaches in the database yet and cannot be chosen.

After selecting a country a beach dropdown list is added to the screen:



Select the beach you want to view or edit. Once you select a beach the beach name is shown in the header bar and the Beach menu is turned on.

The Help menu provides information about the database and has links to other help information (such as this document).

To change your profile information such as your password click My Profile. The first time you log in you should change your password to a value only you know.

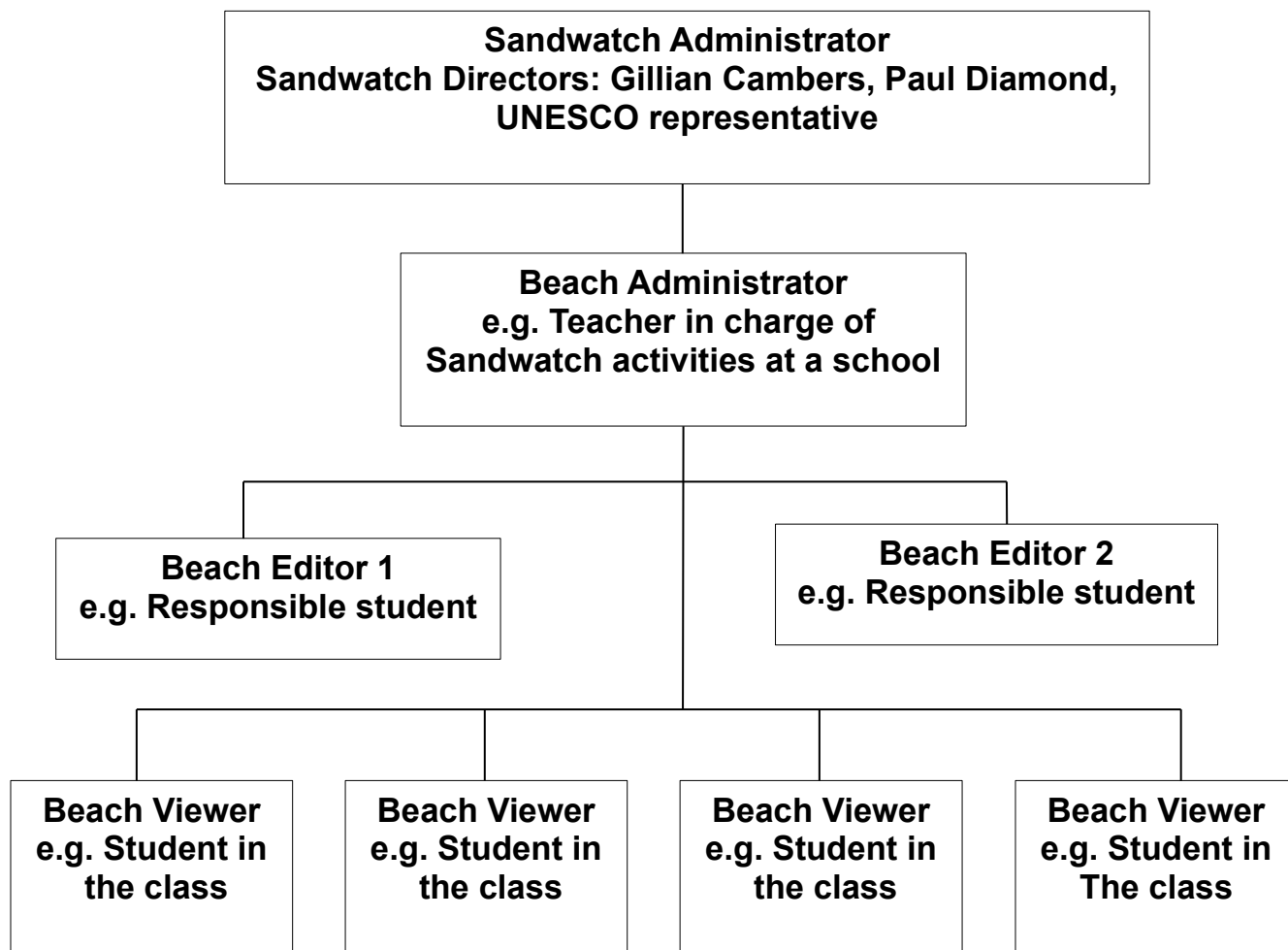
Access to the information for the beach you select is controlled by your user type and your Sandwatch group membership.

If you are not a member of a Sandwatch group or if the beach is not one of your group's beaches you will have guest access. You will be able to view unrestricted information but not change anything.

For beaches that are monitored by your Sandwatch group your access is controlled by your Group Leader (Beach Administrator). The Group Leader (Beach Administrator) can view and edit all information including information on the Details of Sandwatch Group tab on the General Description page. The Group Leader (Beach Administrator) can assign one or two members as editors (Beach Editors) for each beach. These Beach Editors can edit any beach information except information on the Details of Sandwatch Group tab. Other group members (Beach Viewer) can view but not edit all information for beaches monitored by the Group.

When you have finished your session, particularly if you have edited data, click Log Out before closing the browser.

Types of Users



Sandwatch Administrator

There are a small number of Sandwatch Administrators with the following rights:

1. Can add, modify and delete users of any type.
2. Can change the type of a user.
3. Can create, modify or delete Groups.
4. Can assign a Group Leader (who must be a Beach Administrator).
5. Can see and edit all data.

Beach Administrator

Each Group must have an assigned Group Leader who will be the Beach Administrator for all Beaches belonging to the Group. Beach Administrators are added and assigned as Group

Leader by a Sandwatch Administrator. Beach Administrators have the following rights:

1. Can add, modify and delete users that are Group Members.
2. Can create, modify and delete Beaches belonging to the Group and assign up to two Group Members that will be editors for each Beach. (These editors will be Beach Editors, all other members are Beach Viewers.)
3. Can edit all data for all Beaches belonging to the Group.
4. Are the only users able to edit the Group information.
5. Have Guest access to the data of any other Group.

Beach Editor

A Group Leader (Beach Administrator) assigns a Group Member as a Beach Editor for one of the Group's Beaches. There can be up to two Beach Editors for a Beach. Beach Editors have the following rights:

1. Can edit all data for the Beach(es) to which they have been assigned by the Beach Administrator except the Group information.
2. Have Beach Viewer access to the Beach information for any other Beach belonging to the Group.
3. Have Guest access to the data of any other Group.

Beach Viewer

Beach Viewers are Group Members who have not been assigned as editors for a Beach. Beach Viewers have the following rights:

1. Can view all information for any Beach belonging to the Group.
2. Have Guest access to the data of any other Group.

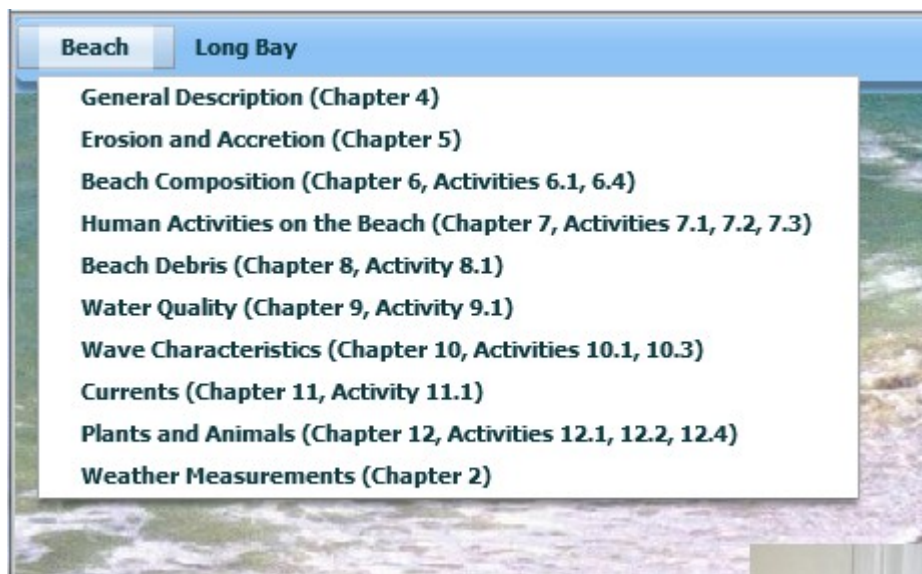
Guest

Guests are users of the open guest user account or other users that are not members of a Group or Sandwatch Administrators. Guests have the following rights:

1. Can view the non-restricted information for any Beach. Some information such as Group address and phone number is restricted and available only to Group Members and Sandwatch Administrators.
2. Can not edit any data in the database.

Beach Menu

Once you select a beach, click the Beach menu in the header bar to access the information you want to view or edit.

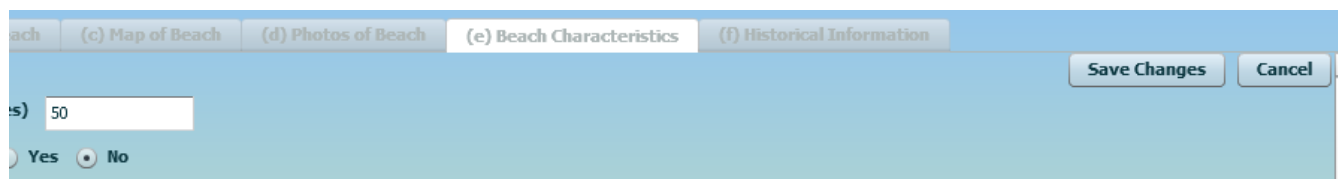


Information is organized in parallel to the chapters in the Sandwatch Manual. The appropriate chapter is shown for each menu item. Presently the database handles information for the chapters listed in the picture above. More information on each menu item is given in the following sections of this guide.

Editing Information

If you have edit access to the beach information you will see some additional items on the information pages.

Pages will have Save Changes and Cancel buttons in the top right hand corner. (For popup editors for detailed information these buttons may have different locations.) Initially both of these are deactivated. Once you change an information item these will be activated and other tabs and menus will be deactivated so you will not be able to leave the page until you either save or cancel your changes.



Depending on your screen size after you have finished editing information these buttons may not be visible. When you want to save or cancel your changes scroll to the top right corner to access the buttons.

On some pages there may be items that are not editable (read-only). For example on the Location of Beach tab on the General Description page the Name of Beach, Latitude and Longitude are read-only (the Name of Beach is set by the Group Leader (Beach Administrator); the latitude and Longitude are set through the Map of Beach tab). These items have a tinted background. Editable items will have a white background.

For tabs or pages with a dropdown list to select a set of information such as the Historical Information tab shown below, there will be an option in the list to add a new set of information.

General Description (Chapter 4)

(a) Details of Sandwatch Group

(b) Location of Beach

(c) Map of Beach

(d) Photos of Beach

(e) Historical Information

Select history

Select one...

Select one...1970Add new history...

Year to which information relate

Source of information

Historical beach characteristics

General Description (Chap. 4)



Selecting General Description from the Beach menu brings up a tabbed page with the tabs shown above. The tabs are:

Details of Sandwatch Group

Entries on this tab can only be edited by the Group Leader (Beach Administrator). This page contains basic information on the Sandwatch Group. The Address, Telephone contact and Email contact information are only visible to Group Members and Sandwatch Administrators. They are removed for all other viewers.

Location of Beach

On this tab you can only enter the District/Parish/Nearest Town, Island/Province and Country fields and add a sketch of the beach. The Name of Beach is entered by the Group Leader (Beach Administrator) as part of the Admin function. The Latitude and Longitude are set from the Map of Beach tab.

You can add or update the sketch from a graphic file in JPEG, GIF or PNG format. The file must be less than 1MB in size. If your file is bigger compress it before uploading.

Map of Beach

This tab provides a map view of the beach using the standard Google Map tool. If you have edit rights (Beach Administrator, Beach Editor) you can browse the area setting latitude, longitude and zoom then save the values you want for the starting point for other viewers. Others can move and zoom the view but cannot reset the starting point.

Photos of Beach

This tab allows those with edit rights to upload photos of the beach. For more information on photo pages see the Photo Pages section.

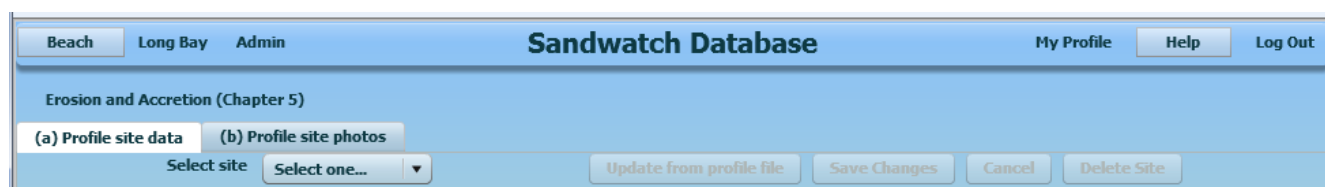
Beach Characteristics

This tab holds information that describes the beach characteristics. Much of this information is entered by clicking radio buttons (round dot) or check boxes (square dot). For groups of radio buttons you can select only 1 value. Clicking a second value will unselect the first. For groups of check boxes you can check all that apply.

Historical Information

On this tab you can enter historical information by the year to which it applies. To start a new historical information set choose “Add new history...” from the Select history dropdown. For each set you can enter year, source, description and photos.

Erosion and Accretion (Chap. 5)



Erosion and accretion data is collected as described in chapter 5 of the Sandwatch Manual. Selecting Erosion and Accretion from the Beach menu brings up a tabbed page with 2 tabs.

Profile Site Data

For each measurement site the beach width information can be entered or you can upload the information from a data file generated using the Beach Profile Analysis program available from the Sandwatch website.

New Site

To enter information for a new site pick the “Add new site...” option from the Select site dropdown. Enter the descriptive information and click Save. Then you can upload a photo of the starting point and either upload information from a Profile (PRF) file or enter beach width data manually.

Profile Data

To add data from a Profile (PRF) file generated by the Beach Profile Analysis program click the “Update from profile file” button and pick your profile file. The complete file is uploaded to the Sandwatch Database and the date, beach width and beach profile area values are shown in the table. You can double click on a row in the table to add a comment for the values for the row date but you cannot change the width or area – these can only be modified through the Beach Profile Analysis program.

Beach Width Data

If you are not taking full beach profiles and adding data using the Beach Profile Analysis program you can manually add beach width information for your site. To add a new value click the “Add Measurement” button. To edit or delete an existing value double click on the appropriate row. For each value you can enter date, beach width and a comment.

Graphs and Spreadsheets

Both viewers and editors (Beach Viewer, Beach Editor and Beach Administrator) can save graphs and spreadsheets of the data for a site.

For a graph of the site data click the “Show Graph” button. You can edit the title and subtitle for the graph. If you have data from a Profile file you can pick whether to graph area or width.

You can select the background and line colours. When you view the graph you can then save a copy that you can use for reports and presentations. See Note on Saving Graphs.

To export the site information as a spreadsheet click the “Export Spreadsheet” button. The spreadsheet will be saved in Excel xls format.

Profile Site Photos

This tab provides a page for photos related to the collection of erosion and accretion data. For more information on photo pages see the Photo Pages section.

Beach Composition (Chap. 6)



Beach composition information is collected as described in chapter 6 of the Sandwatch Manual. Selecting Beach Composition from the Beach menu brings up a tabbed page with 3 tabs.

Observation and Sample Collection

This tab provides space to enter a general description of the composition of the beach and a sketch map on which you should show the key geographical features of the beach (cliffs, dunes, river mouth), the different sediment types on the beach, and the location of sediment sampling points.

Sediment Characteristics

On this tab you can enter the data you collect at various composition sampling points as described in the Sandwatch Manual.

To add a new sampling point select “Add new site...” from the “Select site number” drop down. Enter a unique site number for the site and indicate whether the site is homogeneous or not.

If the site is homogeneous (material all one size e.g. sand) you will see 1 table for data. If the site is not homogeneous (material a mixture of sizes e.g. sand and stones) there will be two tables – for main and secondary sediment type.

To enter a new observation click the “Add Measurement” button. To edit an existing observation double click it's row in the table. In either case you will be presented with a form to enter or edit the observation values.

Edit Composition Data

Main Sediment Type

Date (dd/mm/year)
11/01/2012

Colour of sediment
black

Origin of sediment
land-based

Description
(clay, silt, sand, gravel, cobbles, boulders - see table of sediment types and sizes in Activity 6.1)

sand

Size (mm)
(refer to Figure 11)

1.5

Sorting
(refer to Figure 11)

moderately sorted

Shape
(refer to Figure 11)

very angular

Save
Cancel
Delete
Done

For “Origin”, “Sorting” or “Shape” select the appropriate value from the drop down list as described in Chapter 6 of the Sandwatch Manual. Save any changes then click “Done”.

To generate a graph of data in one of the tables click the “Show Graph” button above the table. You can edit the graph title, enter a subtitle and select the data type to graph. You can also restrict the date range for your graph. After displaying your graph you can save a copy for later use.

To export a spreadsheet containing all of your composition data click the “Export Spreadsheet” button above the top table.

Photos of Sediment Characteristics

This tab provides a page for photos related to the collection of composition data. For more information on photo pages see the Photo Pages section.

Human Activities on the Beach (Chap. 7)

The screenshot shows the Sandwatch Database interface. At the top, there are navigation tabs: Beach, Long Bay, and Admin. The main title is 'Sandwatch Database'. On the right, there are links for 'My Profile', 'Help', and 'Log Out'. Below the title, the section is 'Human Activities on the Beach (Chapter 7, Activities 7.1, 7.2, 7.3)'. There are three tabs: (a) Activities on the beach (Activity 7.1), (b) Views of beach users (Activities 7.2 and 7.3), and (c) Photos of human activities. Under tab (a), there is a 'Select observation date' dropdown menu with 'Select one...' as the selected option. To the right of the dropdown are three buttons: 'Save Changes', 'Cancel', and 'Delete Observation Set'.

Human Activities information is collected as described in chapter 7 of the Sandwatch Manual. Selecting Human Activities on the Beach from the Beach menu brings up a tabbed page with 3 tabs.

Activities on the Beach

On this tab you can enter human activity data by date. To add a new date select “Add new observation date...” from the “Select observation date” drop down. Select the observation date with the calendar widget and indicate the observation type depending on the data you collected. Save these values before entering your observations.

If the observation type is Timeline or Both you will see a table for your timeline observations.

To add an activity line click the “Add Line” button. To edit an existing line double click it's row in the table. In either case you will be presented with a form to enter or edit the activity observation values.

The screenshot shows the 'Edit Human Activity Timeline Data' form. It has a yellow background. There are three main sections: 'Time start', 'Time end', and 'Activity(ies)'. The 'Time start' section has two spinners for hours (6) and minutes (0), and two radio buttons for 'am' and 'pm'. The 'Time end' section has two spinners for hours (7) and minutes (0), and two radio buttons for 'am' and 'pm'. The 'Activity(ies)' section has a text input field containing 'Fishermen taking boats out and one boat r'. At the bottom, there are four buttons: 'Save', 'Cancel', 'Delete', and 'Done'.

For “Time start” or “Time end” use the up and down arrows on the counters to set hours and minutes and select “am” or “pm”. Save any changes then click “Done”.

To export a spreadsheet containing all of your timeline data click the “Export Spreadsheet” button above the table. Note that if your observation type is “Both” the spreadsheet will contain both tables.

If the observation type is Count or Both you will see a table for your human activity count observations with activity counts by time of day.

To add count information for a new time click the “Add New Count Time” button. To edit the data for an existing time double click it's row in the table. In either case you will be presented

with a form to enter or edit the activity count observation values.

The screenshot shows a window titled "Edit Human Activity Count Data". The form has a yellow background. At the top, there is a "Time" section with two spinners for hours (set to 6) and minutes (set to 0), and two radio buttons for "am" (selected) and "pm". Below this are several activity categories, each with a text input field: "Sea bathing" (0), "Sunbathing" (0), "Walking and/or running" (2), "Picnicking" (0), "Fishing" (4), "Playing" (0), "Windsurfing/kitesurfing" (0), "Horse riding" (0), "Sitting" (0), "Other" (0), and "Total" (6). The "Total" field is highlighted in light blue. At the bottom of the form are four buttons: "Save", "Cancel", "Delete", and "Done".

For "Time" use the up and down arrows on the counters to set hours and minutes and select "am" or "pm". Save any changes then click "Done".

To generate a pie graph of data in the activity count table click the "Show Graph" button above the table. You can edit the graph title or enter a subtitle. You can generate a graph for the counts at a particular time or for the totals for the day. After displaying your graph you can save a copy for later use.

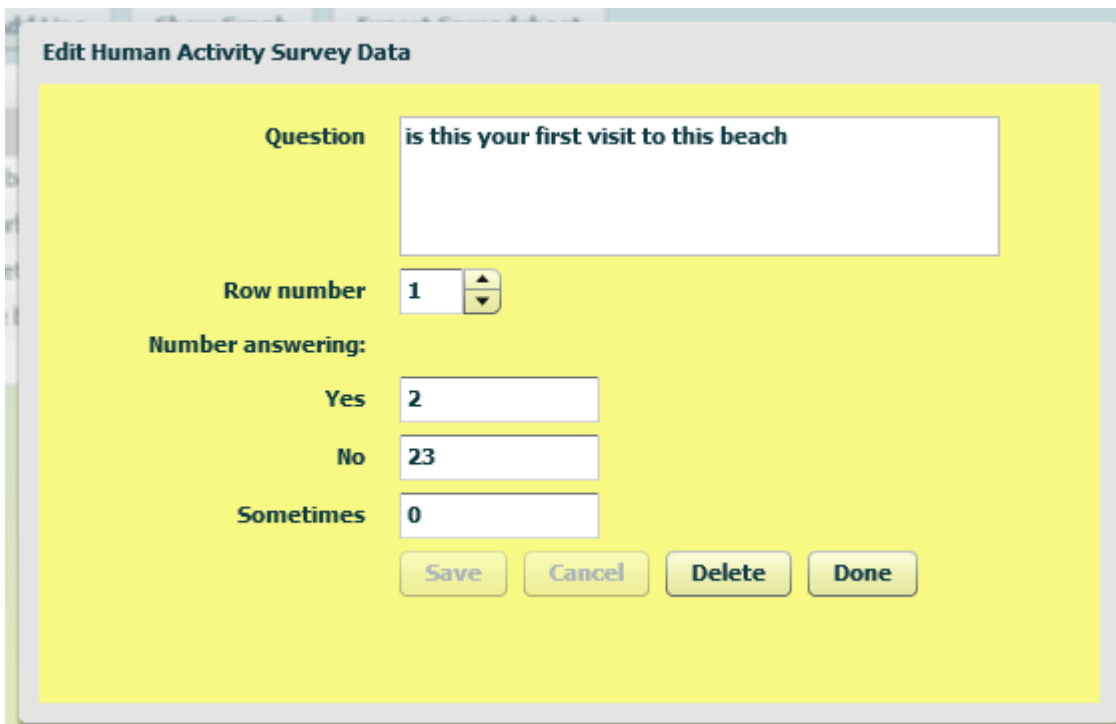
To export a spreadsheet containing all of your activity count data click the "Export Spreadsheet" button above the table. Note that if your observation type is "Both" the spreadsheet will contain both tables.

Views of Beach Users

This tab can be used to enter counts from surveys you take of the views of beach users as discussed in activity 7.2 in the manual. Data is entered by survey date. To add a new survey date select "Add new survey date..." from the "Select observation date" drop down. Select the observation date with the calendar widget. If you are using questions you have used in a previous survey you can reduce the data entry by clicking the "Copy From Earlier Survey" button. This will bring up a popup window where you can select the date of the previous

survey you want to copy the questions from. You can edit, add or delete questions so the survey you are copying from does not have to have exactly the same questions. Save these values before entering your survey counts.

To add a question click the “Add Line” button. To edit the data for an existing question double click it's row in the table. In either case you will be presented with a form to enter or edit the survey question values.



Edit Human Activity Survey Data

Question is this your first visit to this beach

Row number 1

Number answering:

Yes 2

No 23

Sometimes 0

Save Cancel Delete Done

You can edit the question text. You can also change the row number to move the line in the table. Save any changes then click “Done”.

To generate a pie graph of the counts for a survey question click the “Show Graph” button above the table. You can edit the graph title or enter a subtitle. Pick the question you want graphed. After displaying your graph you can save a copy for later use.

To export a spreadsheet containing all of your survey count data click the “Export Spreadsheet” button above the table.

Photos of Human Activities

This tab provides a page for photos related to the collection of human activity data. For more information on photo pages see the Photo Pages section.

Beach Debris (Chap. 8)

The screenshot shows the Sandwatch Database interface. At the top, there are navigation tabs: Beach, Long Bay, and Admin. The main title is "Sandwatch Database". On the right, there are links for "My Profile", "Help", and "Log Out". Below the title bar, there is a section for "Beach Debris (Chapter 8, Activity 8.1)". Under this section, there are two tabs: "(a) Measuring beach debris (Activity 8.1)" and "(b) Photos of activities relating to beach debris". The "(a)" tab is currently selected. Below the tabs, there is a "Select transect" dropdown menu with "Select one..." as the current selection. To the right of the dropdown are three buttons: "Save Changes", "Cancel", and "Delete Observation Set".

Beach Debris information is collected as described in chapter 8 of the Sandwatch Manual. Selecting Beach Debris from the Beach menu brings up a tabbed page with 2 tabs.

Measuring Beach Debris

On this tab you can enter data you have collected from a debris survey transect (activity 8.1). To add a new transect select "Add New Transect" from the "Select transect" drop down. Enter a description of the transect and indicate whether you are collecting information by count or by weight. Save these values before entering your observations.

To add survey data for a new date click the "Add New Observation Set" button. To edit the data for an existing date double click in it's column in the table. In either case you will be presented with a form to enter or edit the survey data values.

The screenshot shows the "Edit Debris Observation Data" form. The form has a yellow background and a title bar that says "Edit Debris Observation Data". Below the title bar, there is a section titled "Record number of pieces for each category". This section contains a list of debris categories with corresponding input fields for the number of pieces. The categories and their values are: Date (07/07/2012), Plastic (40), Styrofoam (4), Glass (6), Rubber (3), Metal (1), Paper (5), Wood (4), Cloth (0), Other (0), and Total (63). At the bottom of the form, there are four buttons: "Save", "Cancel", "Delete", and "Done".

Category	Count
Date	07/07/2012
Plastic	40
Styrofoam	4
Glass	6
Rubber	3
Metal	1
Paper	5
Wood	4
Cloth	0
Other	0
Total	63

Select the date of the survey and enter the count or weight for each category. Save any changes then click “Done”.

For beach debris you can generate a pie graph of the data for one survey or a bar graph to compare the data for selected categories on selected dates. To generate the graph click the “Show Graph” button above the table. You can edit the graph title or enter a subtitle. You can select whether you want a pie graph or column graph. For the former you then also select the survey date for the graph. For the latter you select the categories and dates you want included. After displaying your graph you can save a copy for later use.

To export a spreadsheet containing all of your survey data click the “Export Spreadsheet” button above the table.

Photos of Activities Relating to Beach Debris

This tab provides a page for photos related to the collection of beach debris transect data. For more information on photo pages see the Photo Pages section.

Water Quality (Chap. 9)

The screenshot shows the 'Sandwatch Database' interface. At the top, there are navigation tabs: 'Beach', 'Long Bay', and 'Admin'. The 'Beach' tab is selected. To the right of the tabs are links for 'My Profile', 'Help', and 'Log Out'. Below the navigation bar, the page title is 'Water Quality (Chapter 9, Activity 9.1)'. There are two sub-tabs: '(a) Measuring water quality (Activity 9.1)' and '(b) Photos of activities relating to measuring water quality'. The '(a)' tab is active. Below the sub-tabs, there is a label 'Select measurement location' followed by a dropdown menu with the text 'Select one...' and a downward arrow. To the right of the dropdown are three buttons: 'Save Changes', 'Cancel', and 'Delete Observation Set'.

Water Quality information is collected as described in chapter 9 of the Sandwatch Manual. Selecting Water Quality from the Beach menu brings up a tabbed page with 2 tabs.

Measuring Water Quality

On this tab you can enter water quality data you have collected as described in activity 9.1. To add a new location select “Add New Location” from the “Select measurement location” drop down. Enter a description of the location then save this value before entering your observations.

To see a description of the information to be entered click the “Explanation of Water Quality Indicators” button.

To add data for a new date click the “Add New Observation Set” button. To edit the data for an existing date double click in it's column in the table. In either case you will be presented with a form to enter or edit the data values for that date and location.

Edit Water Quality Observation Data

Date: 07/07/2012

Fecal coliform: Fecal coliform less than 20

Dissolved oxygen (ppm): 4

Biochemical oxygen demand (BOD) (ppm): 4

Nitrate (ppm): 5

Phosphate (ppm): 1

pH: 7

Temperature (°C): 26

Salinity (ppt): 14

Turbidity (JTU): 0

Other observations e.g. smell, colour of water: Water was very clear

Buttons: Save, Cancel, Delete, Done

Select the date on which the data was collected and enter the data in the units indicated. If you did not collect data for a water quality indicator listed leave the value blank. Save any changes then click “Done”.

To generate a graph of the values for an indicator over time click the “Show Graph” button above the table. You can edit the graph title or enter a subtitle. Then select the indicator you want graphed. You can also restrict the date range for your graph. After displaying your graph you can save a copy for later use.

To export a spreadsheet containing all of your water quality data for the location click the “Export Spreadsheet” button above the table.

Photos of Activities Relating to Measuring Water Quality

This tab provides a page for photos related to the collection of water quality data. For more information on photo pages see the Photo Pages section.

Wave Characteristics (Chap. 10)

The screenshot shows the Sandwatch Database interface. At the top, there are navigation tabs: Beach, Long Bay, and Admin. The main title is "Sandwatch Database". On the right, there are links for "My Profile", "Help", and "Log Out". Below the title, there is a section for "Wave Characteristics (Chapter 10, Activities 10.1, 10.3)". Under this section, there are three tabs: (a) Measuring waves (Activity 10.1), (b) Keeping a beach journal (Activity 10.3), and (c) Photos of activities relating to wave events. The first tab is selected. Below the tabs, there is a "Select measurement location" dropdown menu with a "Select one..." button. To the right of the dropdown are three buttons: "Save Changes", "Cancel", and "Delete Observation Set".

Wave Characteristics information is collected as described in chapter 10 of the Sandwatch Manual. Selecting Wave Characteristics from the Beach menu brings up a tabbed page with 3 tabs.

Measuring Waves

On this tab you can enter wave characteristics data you have collected as described in activity 10.1. To add a new location select "Add New Location" from the "Select measurement location" drop down. Enter a description of the location then save this value before entering your observations.

To add data for a new date click the "Add New Observation Set" button. To edit the data for an existing date double click in it's row in the table. In either case you will be presented with a form to enter or edit the data values for that date and location.

The screenshot shows the "Edit Wave Characteristics Observation Data" form. The form has a yellow background and a grey border. It contains the following fields and controls:

- Date:** A text input field with the value "15/12/2012" and a calendar icon to its right.
- Wave height (m):** A text input field with the value "1.7".
- Wave period (secs):** A text input field with the value "8.2".
- Wave direction (degrees):** A text input field with the value "165" and a compass icon to its right.
- Observations:** A text input field with the value "Southerly swell waves".
- Buttons:** At the bottom of the form, there are four buttons: "Save", "Cancel", "Delete", and "Done".

Select the date on which the data was collected and enter the data in the units indicated. For wave direction enter the value in degrees or click the compass icon and select the appropriate compass point. Save any changes then click "Done".

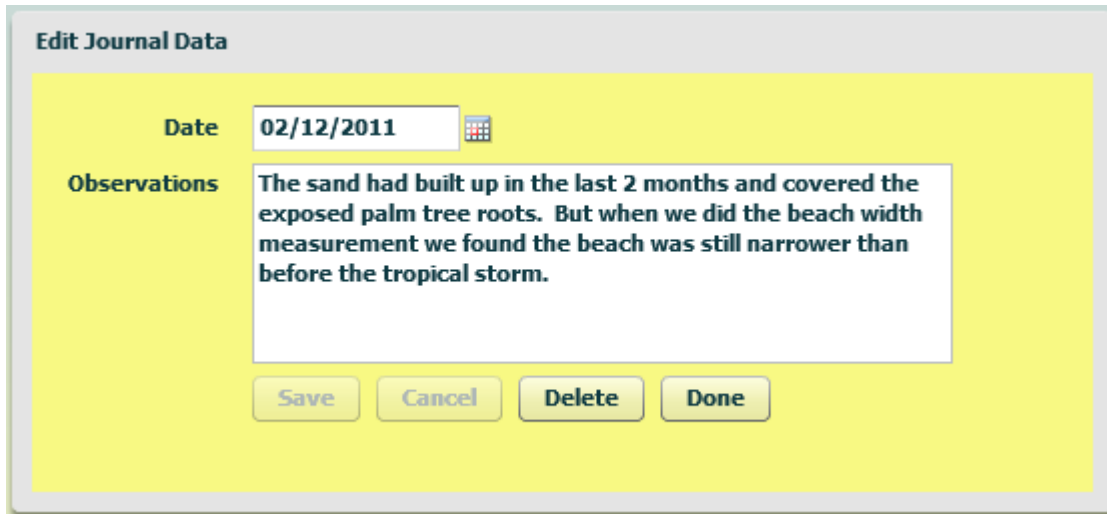
To generate a graph of the values for one of the wave characteristics over time click the "Show Graph" button above the table. You can edit the graph title or enter a subtitle. Then select the characteristic you want graphed. You can also restrict the date range for your

graph. After displaying your graph you can save a copy for later use.

To export a spreadsheet containing all of your wave characteristics data for the location click the “Export Spreadsheet” button above the table.

Keeping a Beach Journal

On this tab you can enter your beach journal entries as described in activity 10.3. To add an entry for a new date click the “Add New Observation Set” button. To edit the data for an existing entry double click in it's row in the table. In either case you will be presented with a form to enter or edit the journal entry for that date.

The image shows a web-based form titled "Edit Journal Data". The form has a yellow background. At the top, there is a label "Date" followed by a text input field containing "02/12/2011" and a small calendar icon to its right. Below this, there is a label "Observations" followed by a large text area containing the text: "The sand had built up in the last 2 months and covered the exposed palm tree roots. But when we did the beach width measurement we found the beach was still narrower than before the tropical storm." At the bottom of the form, there are four buttons: "Save", "Cancel", "Delete", and "Done".

To export a spreadsheet containing all of your journal entries click the “Export Spreadsheet” button above the table.

Photos of Activities Relating to Wave Events

This tab provides a page for photos related to the collection of wave measurements. For more information on photo pages see the Photo Pages section.

Currents (Chap. 11)

The screenshot shows the 'Sandwatch Database' interface. At the top, there are tabs for 'Beach', 'Long Bay', and 'Admin'. The 'Beach' tab is selected. Below the tabs, the title 'Sandwatch Database' is centered. To the right, there are links for 'My Profile', 'Help', and 'Log Out'. The main content area is titled 'Currents (Chapter 11, Activity 11.1)'. Below this, there are two tabs: '(a) Measuring longshore currents (Activity 11.1)' and '(b) Photos of activities relating to longshore currents'. The '(a)' tab is selected. Below the tabs, there is a label 'Select observation location' followed by a dropdown menu showing 'Select one...'. To the right of the dropdown are three buttons: 'Save Changes', 'Cancel', and 'Delete Observation Set'.

Longshore current information is collected as described in chapter 11 of the Sandwatch Manual. Selecting Currents from the Beach menu brings up a tabbed page with 2 tabs.

Measuring Longshore Currents

On this tab you can enter longshore current data you have collected as described in activity 11.1. To add a new location select “Add New Location” from the “Select observation location” drop down. Enter a description of the location then save this value before entering your observations.

To add data for a new date click the “Add New Observation Set” button. To edit the data for an existing date double click in it's row in the table. In either case you will be presented with a form to enter or edit the data values for that date and location.

The screenshot shows the 'Edit Longshore Currents Observation Data' form. The form has a yellow background and a grey border. At the top, the title 'Edit Longshore Currents Observation Data' is displayed. Below the title, there are several input fields and buttons. The first row is for the 'Date', with a text box containing '10/11/2012' and a calendar icon. Below this, there is a section for 'After 1 minute' with a 'Distance (m)' text box containing '1' and a 'Direction (degrees)' text box containing '270' with a compass icon. Below this, there is a section for 'After 5 minutes' with a 'Distance (m)' text box containing '2.8' and a 'Direction (degrees)' text box containing '270' with a compass icon. At the bottom, there is a large text box for 'Observations'. Below the text box are four buttons: 'Save', 'Cancel', 'Delete', and 'Done'.

Select the date on which the data was collected and enter the data in the units indicated. For current direction enter the value in degrees or click the compass icon and select the appropriate compass point. The speed values shown in the table will be calculated from the

entered distance values. Save any changes then click “Done”.

To generate a graph of the values for one of the data columns over time click the “Show Graph” button above the table. You can edit the graph title or enter a subtitle. Then select the data column you want graphed. You can also restrict the date range for your graph. After displaying your graph you can save a copy for later use.

To export a spreadsheet containing all of your longshore current data for the location click the “Export Spreadsheet” button above the table.

Photos of Activities Relating to Longshore Currents

This tab provides a page for photos related to the collection of measurements of longshore currents. For more information on photo pages see the Photo Pages section.

Plants and Animals (Chap. 12)

The screenshot shows the Sandwatch Database interface. At the top, there are navigation tabs: 'Beach', 'Long Bay', and 'Admin'. The 'Beach' tab is selected. Below the navigation tabs, the title 'Sandwatch Database' is centered. To the right of the title are links for 'My Profile', 'Help', and 'Log Out'. Below the title bar, there is a section titled 'Plants and Animals (Chapter 12, Activities 12.1, 12.2, 12.4)'. This section contains four sub-tabs: (a) Plants and animals on the beach (...), (b) Measuring the vegetation succes..., (c) Monitoring nesting turtle activity ..., and (d) Photos relating to observation of ... The (a) tab is selected. Below the sub-tabs, there is a 'Select observation date' dropdown menu with 'Select one...' as the selected option. To the right of the dropdown are three buttons: 'Save Changes', 'Cancel', and 'Delete Observation Set'.

Observations of plants and animals are collected as described in chapter 12 of the Sandwatch Manual. Selecting Plants and Animals from the Beach menu brings up a tabbed page with 4 tabs.

Plants and Animals on the Beach

On this tab you can enter observations you have collected of plants and animals on the beach as described in activity 12.1. To add a new observation date select “Add new observation date...” from the “Select observation date” drop down. Select the observation date then save this value before entering your observations.

As discussed in the description above the table the observations are entered by beach zone. To add observations for a new zone click the “Add Zone” button. To edit the data for an existing zone double click in it's row in the table. In either case you will be presented with a form to enter or edit the observations for that zone.

The screenshot shows the 'Edit Plants and Animals Observation Record' form. The form has a yellow background and a grey border. It contains four input fields: 'Beach Zone' with the text '1. Between low water mark and high water mark', 'Types of Animals' with the text 'crabs, hermit crabs, sea cucumbers, clams', 'Types of Plants' with the text 'green algae', and 'Observations' which is empty. Below the input fields are four buttons: 'Save', 'Cancel', 'Delete', and 'Done'.

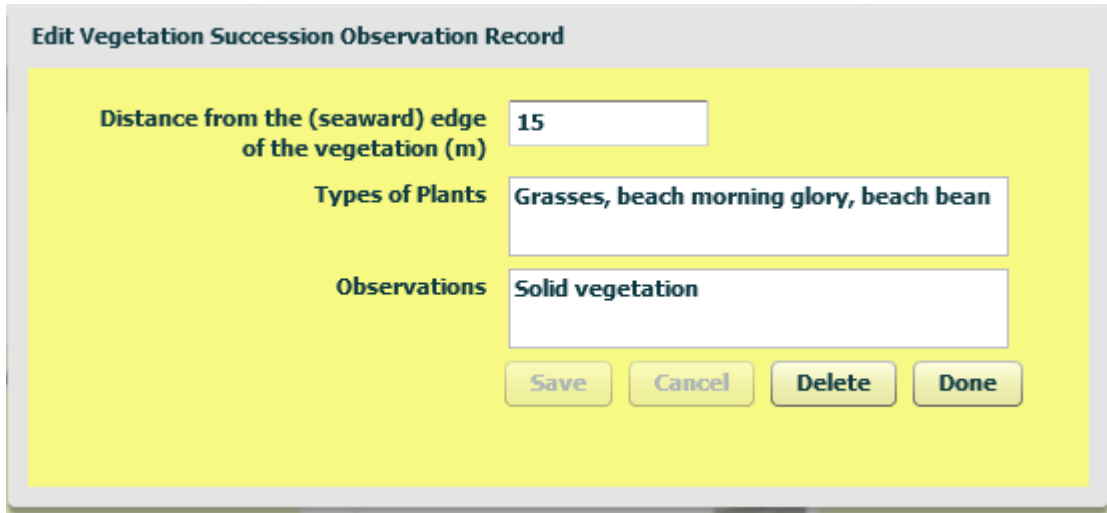
Enter a description of the beach zone and your observations. Save any changes then click “Done”.

To export a spreadsheet containing all of your plant and animal observations for the date click the “Export Spreadsheet” button above the table.

Measuring the Vegetation Succession

On this tab you can enter observations you have collected of vegetation succession as described in activity 12.2. To add a new observation date select “Add new observation date...” from the “Select observation date” drop down. Select the observation date then save this value before entering your observations.

The vegetation succession observations are entered by distance from the seaward edge of the observed plant grouping. To add observations for a new distance click the “Add Record” button. To edit the data for an existing record double click in it's row in the table. In either case you will be presented with a form to enter or edit the observations for that zone.



The screenshot shows a web form titled "Edit Vegetation Succession Observation Record". The form has a yellow background and contains three main input fields: "Distance from the (seaward) edge of the vegetation (m)" with the value "15", "Types of Plants" with the text "Grasses, beach morning glory, beach bean", and "Observations" with the text "Solid vegetation". At the bottom of the form are four buttons: "Save", "Cancel", "Delete", and "Done".

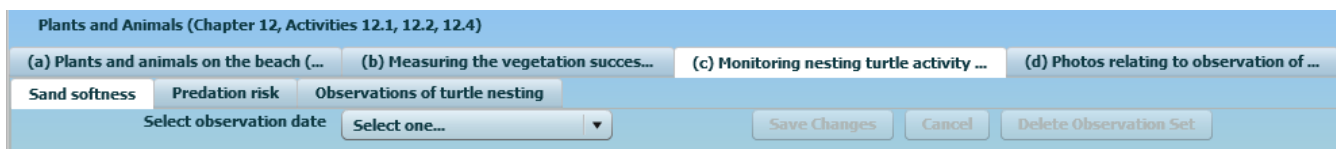
Enter a distance and other observations for this record. Save any changes then click “Done”.

To export a spreadsheet containing all of your vegetation succession observations for the date click the “Export Spreadsheet” button above the table.

You can also add or update a sketch of the vegetation succession. Click the Add/Update button for the sketch and follow the instructions in the Photo Pages section.

Monitoring Nesting Turtle Activity

Clicking on this tab brings up a screen with 3 sub-tabs on which you can record turtle nesting related data as described in activity 12.4.



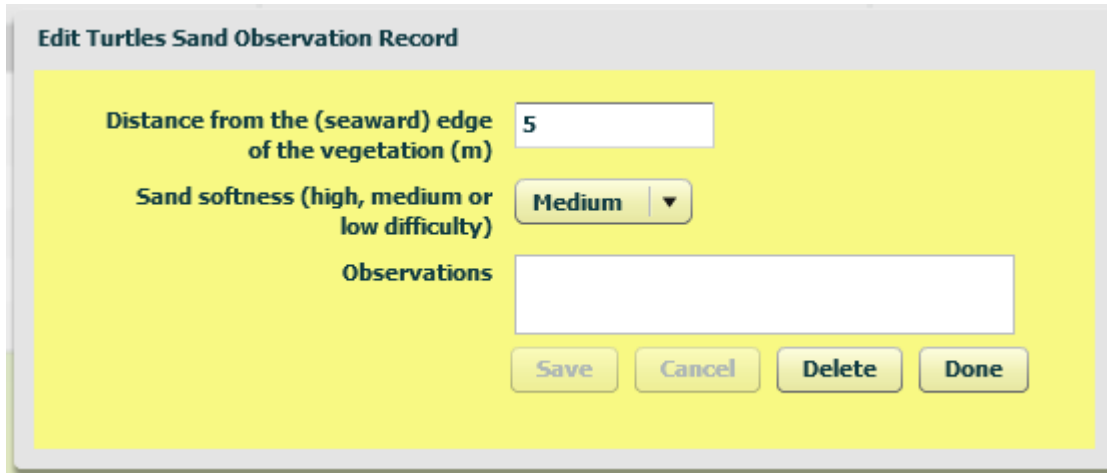
The screenshot shows a web interface for "Plants and Animals (Chapter 12, Activities 12.1, 12.2, 12.4)". It features four sub-tabs: "(a) Plants and animals on the beach (...)", "(b) Measuring the vegetation succes...", "(c) Monitoring nesting turtle activity ...", and "(d) Photos relating to observation of ...". The "(c) Monitoring nesting turtle activity ..." tab is currently selected. Below the tabs, there are three sub-sections: "Sand softness", "Predation risk", and "Observations of turtle nesting". The "Observations of turtle nesting" sub-section is active, showing a "Select observation date" dropdown menu with "Select one..." and three buttons: "Save Changes", "Cancel", and "Delete Observation Set".

Sand Softness

On this sub-tab you can enter observations you have collected of sand softness as described

in activity 12.4. To add a new observation date select “Add new observation date...” from the “Select observation date” drop down. Select the observation date then save this value before entering your observations.

The sand softness observations are entered by distance from the seaward edge of the vegetation. To add observations for a new distance click the “Add Record” button. To edit the data for an existing record double click in it's row in the table. In either case you will be presented with a form to enter or edit the observations for that distance.



The screenshot shows a web form titled "Edit Turtles Sand Observation Record". The form has a yellow background and a grey border. It contains three main input fields: a text box for "Distance from the (seaward) edge of the vegetation (m)" with the value "5", a dropdown menu for "Sand softness (high, medium or low difficulty)" with "Medium" selected, and a large text area for "Observations". At the bottom of the form are four buttons: "Save", "Cancel", "Delete", and "Done".

Enter a distance and other observations for this record. Save any changes then click “Done”.

To export a spreadsheet containing all of your sand softness observations for the date click the “Export Spreadsheet” button above the table.

Predation Risk

On this sub-tab you can enter observations you have collected of predation risk as described in activity 12.4. To add a new observation date select “Add new observation date...” from the “Select observation date” drop down. Select the observation date then save this value before entering your observations.

The predation risk observations are entered by distance from the seaward edge of the vegetation. To add observations for a new distance click the “Add Record” button. To edit the data for an existing record double click in it's row in the table. In either case you will be presented with a form to enter or edit the observations for that distance.

Edit Turtles Risk Observation Record

Distance from the (seaward) edge of the vegetation (m)

Number of crab holes/square metre

Observations

Enter a distance and other observations for this record. Save any changes then click “Done”.

To export a spreadsheet containing all of your predation risk observations for the date click the “Export Spreadsheet” button above the table.

Observations of Turtle Nesting

On this sub-tab you can enter observations you have collected of turtle nesting activity as described in activity 12.4.

To add a new observation click the “Add New Observation Set” button. To edit the data for an existing observation set double click in it's row in the table. In either case you will be presented with a form to enter or edit the observations for that set.

Edit Turtles Nesting Data

Date

Location of nest

Type of sea turtle (based on the turtle tracks)

Date of emergence of hatchlings

Comments

Select the observation date and enter other observations for this set. Save any changes then click “Done”.

To export a spreadsheet containing all of your turtle nesting activity observations click the “Export Spreadsheet” button above the table.

Photos Relating to Observation of Plants and Animals

This tab provides a page for photos related to your observations of plants and animals. For more information on photo pages see the Photo Pages section.

Weather Measurements (Chap. 2)

The screenshot shows the Sandwatch Database interface. At the top, there are navigation tabs: Beach, Long Bay, and Admin. The main title is "Sandwatch Database". On the right, there are links for "My Profile", "Help", and "Log Out". Below the title bar, the page is titled "Weather Measurements (Chapter 2)". There are two tabs: "(a) Weather observations" (selected) and "(b) Photos related to weather observations". Below the tabs, there is a label "Select observation location" followed by a dropdown menu showing "Select one...". To the right of the dropdown are three buttons: "Save Changes", "Cancel", and "Delete Observation Set".

Weather measurements are collected as described in chapter 2 of the Sandwatch Manual. Selecting Weather Measurements from the Beach menu brings up a tabbed page with 2 tabs.

Weather Observations

On this tab you can enter weather measurements you have collected as described in activity 2.1. To add a new location select "Add New Location" from the "Select observation location" drop down. Enter a description of the location then save this value before entering your observations.

To add data for a new date click the "Add New Observation Set" button. To edit the data for an existing date double click in it's row in the table. In either case you will be presented with a form to enter or edit the data values for that date and location.

The screenshot shows the "Edit Weather Observation Data" form. It has a yellow background and a grey border. The form contains the following fields and controls:

- Date:** A text input field with the value "16/11/2012" and a calendar icon to its right.
- Time:** Two spinners for hours (10) and minutes (0), followed by radio buttons for "am" (selected) and "pm".
- Cloud cover:** A dropdown menu with the value "Clear".
- Temperature (°C):** A text input field with the value "28".
- Rainfall (mm):** A text input field with the value "5".
- Wind speed (m/sec):** A text input field with the value "10".
- Wind direction (degrees):** A text input field with the value "225" and a compass icon to its right.
- Observations:** A large text input field.
- Buttons:** Four buttons at the bottom: "Save", "Cancel", "Delete", and "Done".

Select the date on which the data was collected and enter the data in the units indicated. For wind direction enter the value in degrees or click the compass icon and select the appropriate compass point. Save any changes then click "Done".

To generate a graph of the values for one of the data columns over time click the “Show Graph” button above the table. You can edit the graph title or enter a subtitle. Then select the data column you want graphed. You can also restrict the date range for your graph. After displaying your graph you can save a copy for later use.

To export a spreadsheet containing all of your weather observations for the location click the “Export Spreadsheet” button above the table.

Photos Related to Weather Observations

This tab provides a page for photos related to your collection of weather observations. For more information on photo pages see the Photo Pages section.

Photo Pages

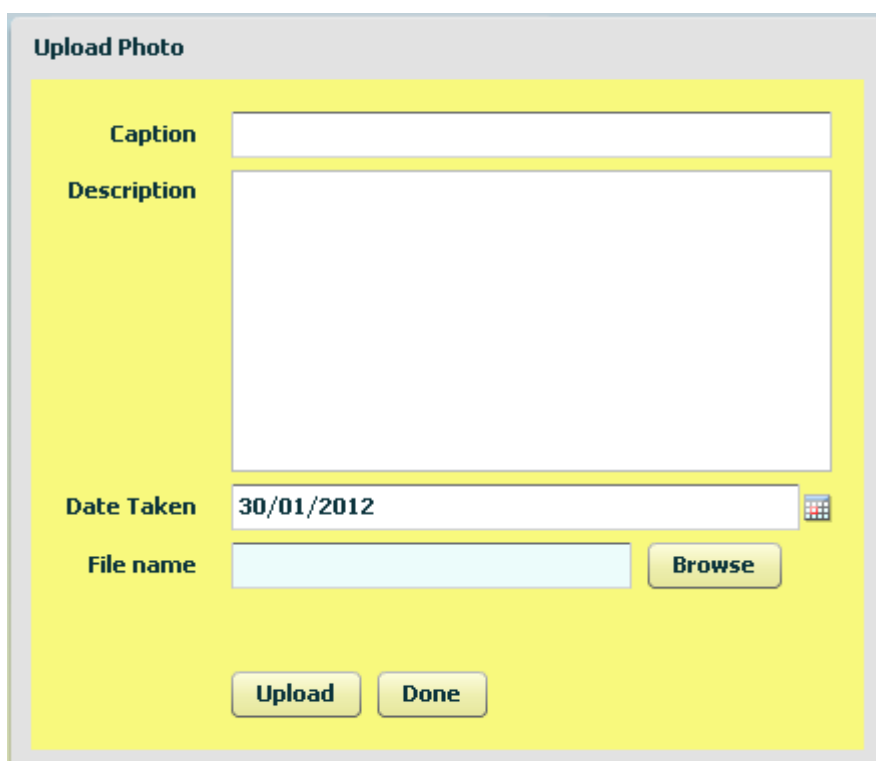
The Sandwatch Database can store photos and sketches that are in JPEG, GIF or PNG format. Files to be uploaded must be less than 1 MB in size. If you have a photo file that you want to upload that is larger than 1 MB you must compress it before uploading. Most graphic view/edit software provides the capability to compress an image.

Normally photos are displayed in reduced size. To see an enlarged version click on the image. To return to the original screen click the image again. The popup window that displays the larger image must fit inside your browser window. Therefore to maximize the size of the displayed image first maximize your browser window.

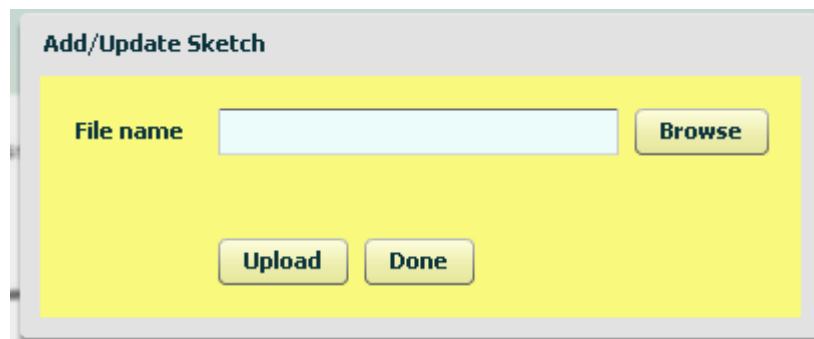
Adding A Photo or Sketch

In some places you can add multiple images for a page (such as the Photos of Beach and Historical Information tabs of the General Description page). In others you can just add or update a single image (such as the Sketch on the Location of Beach tab of the General Description page or the Photo of Starting Point for a Site on the Erosion and Accretion page).

When you click a button to add or update an image you will get an upload form such as the following:

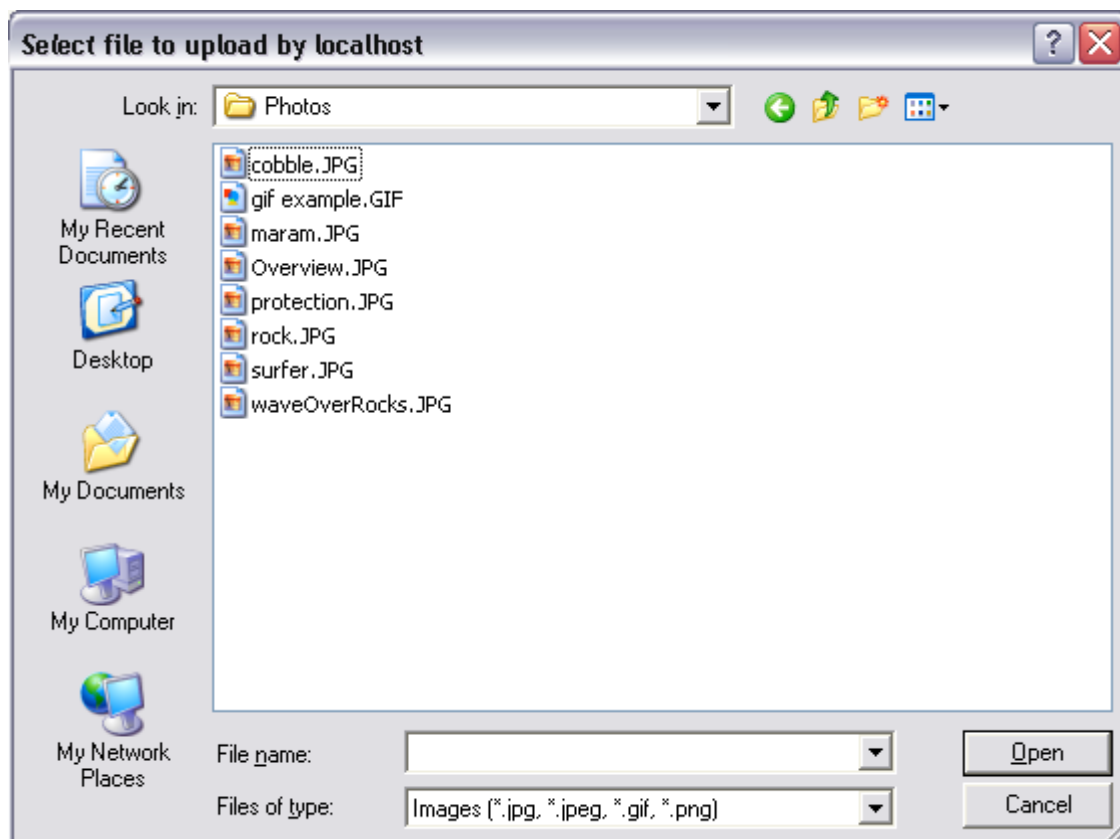
The image shows a web form titled "Upload Photo" with a yellow background. It contains several input fields and buttons. At the top, there is a "Caption" label followed by a single-line text input field. Below that is a "Description" label followed by a large multi-line text area. Further down is a "Date Taken" label followed by a date input field containing "30/01/2012" and a small calendar icon to its right. Below the date field is a "File name" label followed by a text input field and a "Browse" button. At the bottom of the form are two buttons: "Upload" and "Done".

or



In the first case you must at least add a caption. Add a description and update the date the photo was taken as appropriate.

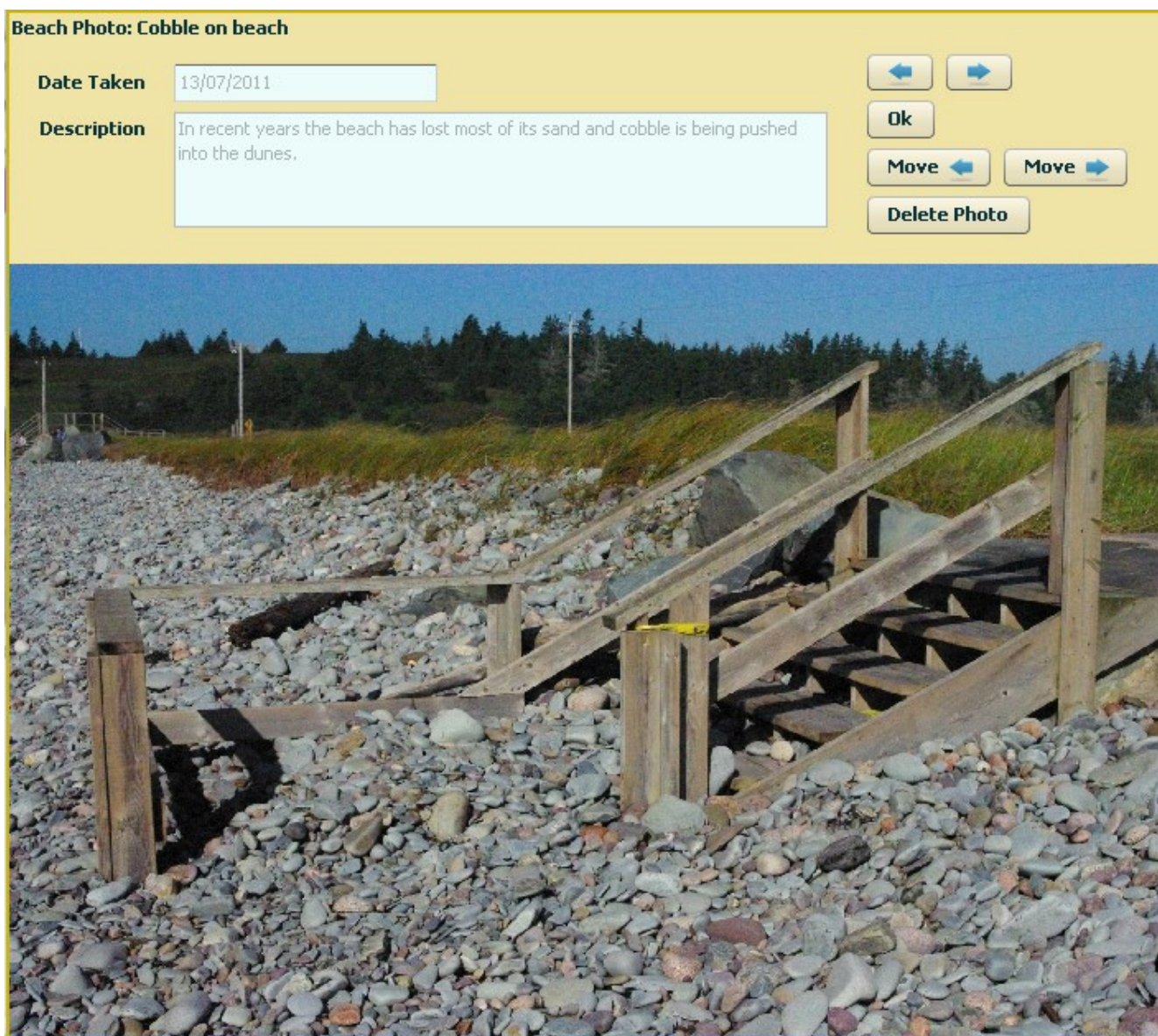
In both cases to select the file you want to upload click the Browse button. You will get a normal file selection window like:



Use the "Look in" drop down to move to the folder holding your photos and select the file you want to upload.

Multiple Photo Pages

For tabs and pages that hold multiple photos clicking a photo will bring up a window like:



You cannot change the caption and description for the photo. Use the plain arrow buttons to move to the previous or next photo. Click the Ok button or the image to close the photo viewer and return to the page.

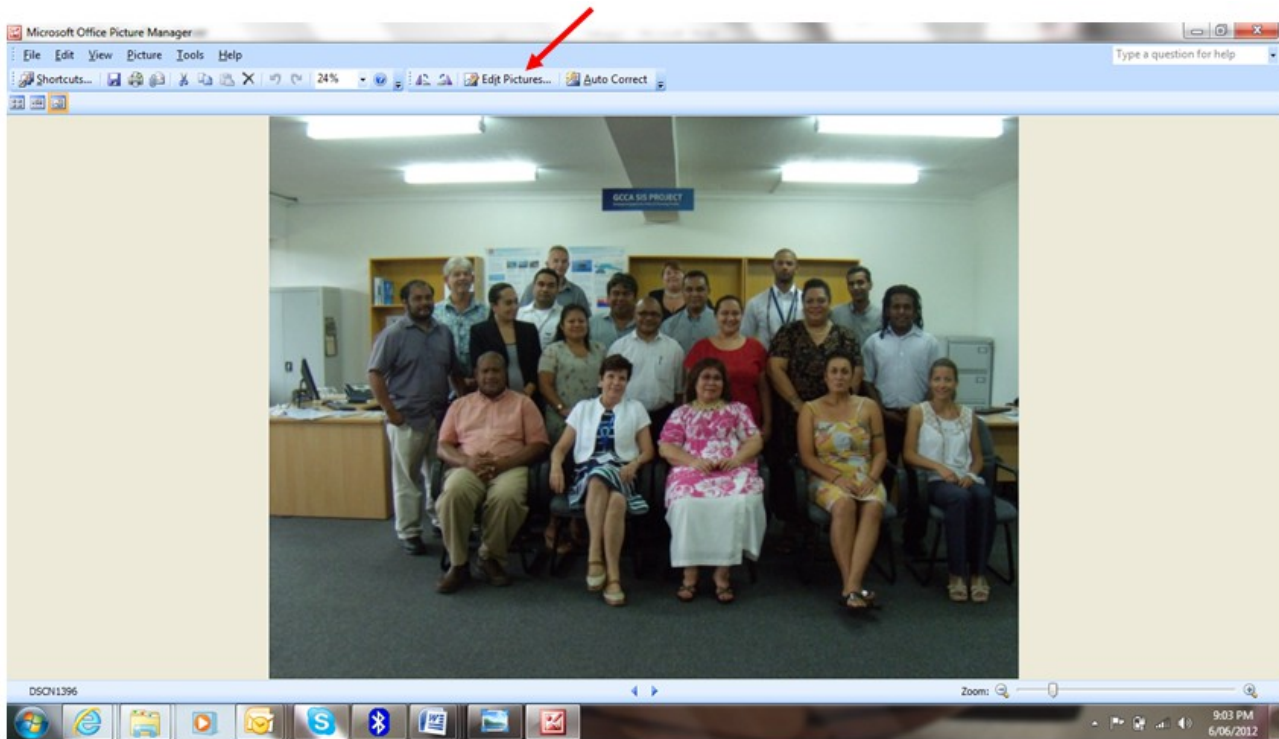
If you have editor rights (Beach Administrator, Beach Editor) you can move the photo within the set of photos by clicking the move+arrow buttons. You can also delete the photo.

Compressing A Photo

These instructions apply to the standard image handling software that comes with Windows 7. If you have a different version of Windows the steps will be similar but the application names and screen layout will be a bit different.

To compress a photo, follow these steps:

- Open the folder with the photos
- Select the photo and double click, the photo then fills the screen
- On the top menu bar select **Open**
- Then Select **Microsoft Office Picture Manager**

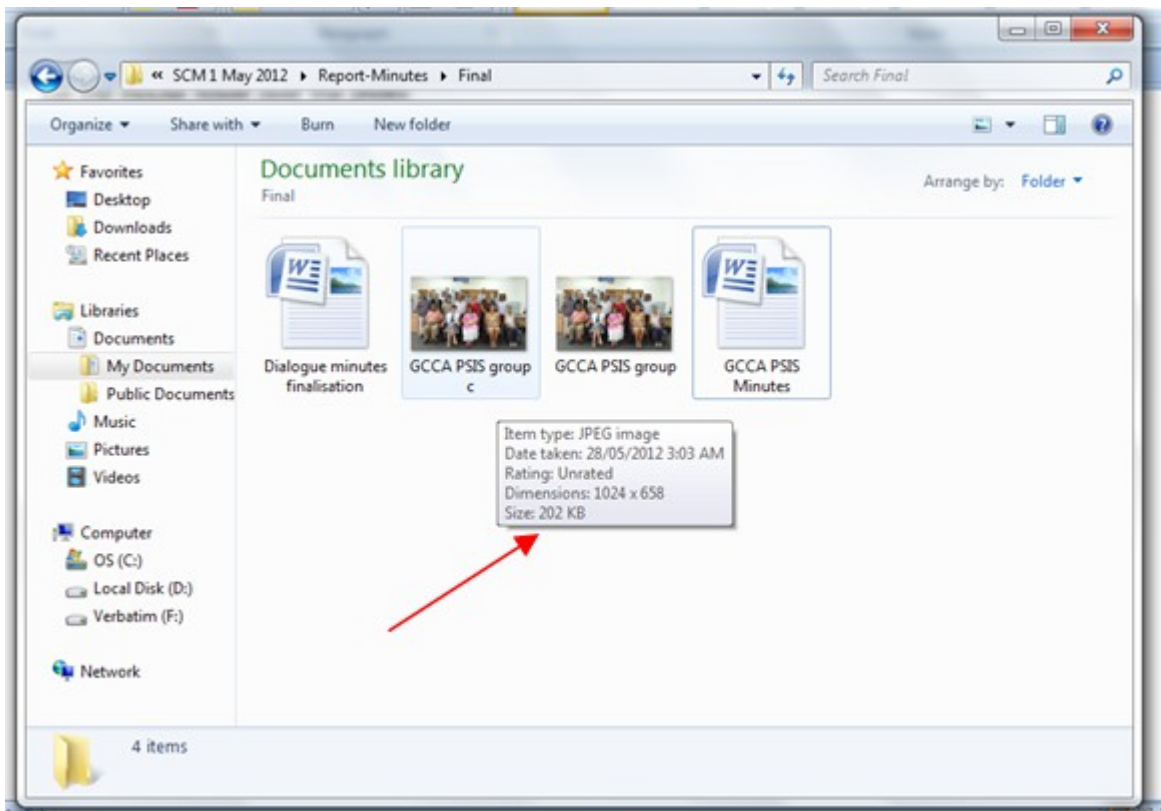


- From the menu on the top select **edit picture**
- Then from the menu on the right select **Compress pictures**



- On the right hand menu, under **Compress for**, select **Documents**
- Click **OK** at the bottom of the right hand menu
- Then go to **File** on the Main Menu,
- Click **Save as**
- Insert a new file name
- Click **Save**

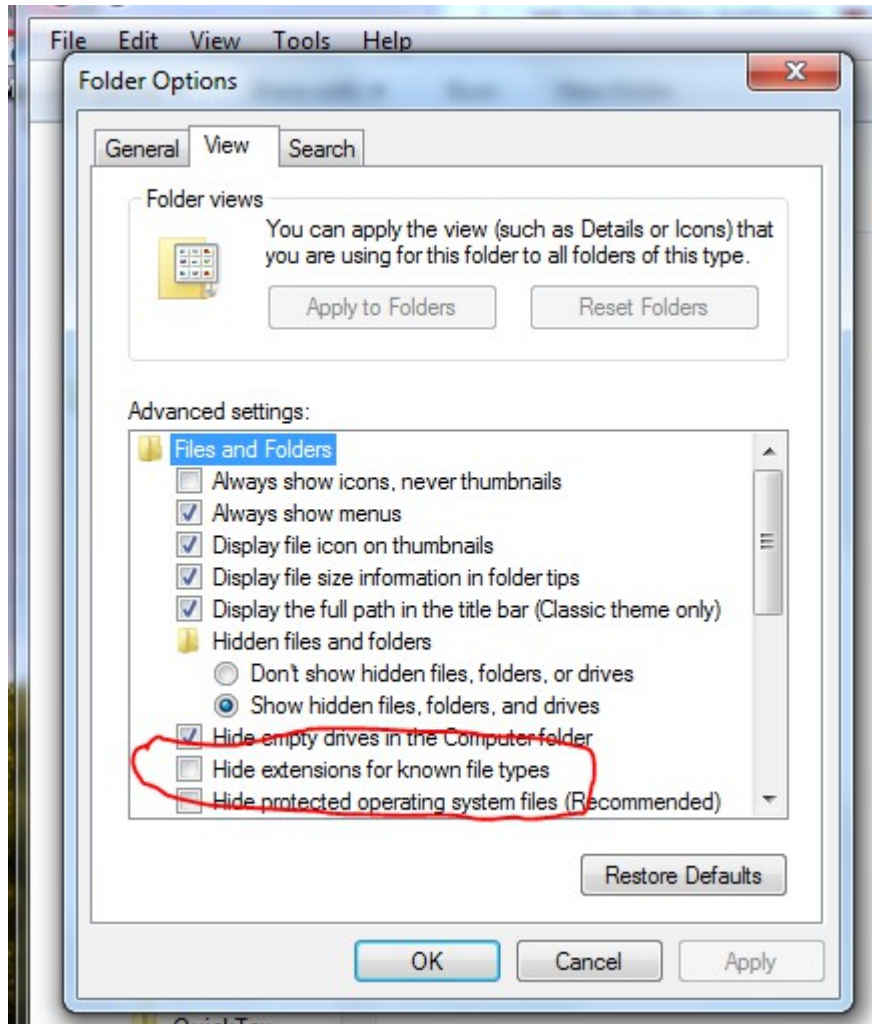
You can check by opening the folder with the photos. Let the mouse hover over the photo. A box should appear giving details of the photo such as File type, date taken, rating, dimensions and Size – the last item size tells you the size of the compressed file. (To load a file in the Sandwatch database – it must be less than 1MB (less than 999KB).



Note on Saving Graphs

There is an issue with Windows if you change the name of a graph that you are saving. There is an option in Windows Explorer that controls whether you see the file extension (like .jpg) with the file name. This applies to Windows Explorer but also to other things such as the file save dialog.

The setting for this is found in Windows Explorer, Tools menu – Folder Options:



If “Hide extensions for known file types” is checked the extensions are not shown. It turns out that when you change the file name, since the extension is not in the text input box it is set to blank (instead of what the file originally had). The extension is what Windows uses to decide what program to use to open the file. Since it is now blank, Windows does not know what to use.

The easiest fix is to uncheck this option (which is checked by default).

Administration

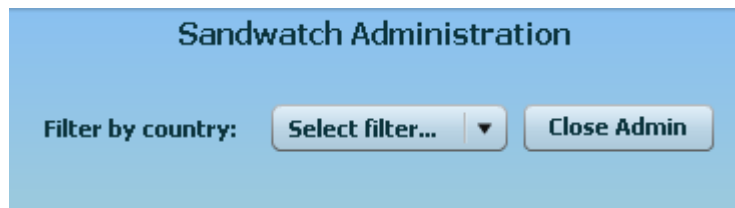
Two types of users have administration rights on the Sandwatch Database:

- Sandwatch Administrators
 - Add countries to the countries list.
 - Add/edit users of any type – particularly Beach Administrators.
 - Add/edit Groups and assign Group Leader (Beach Administrator).
- Beach Administrators
 - Add/edit Group members.
 - Add/edit Beaches monitored by the Group and assign Beach Editors.

When a user of either of these types logs in there will be an Admin button in the header bar. Click this to enter the admin functions.

Sandwatch Administrator

After clicking the Admin button you will first see:



The image shows a light blue rectangular box with the title "Sandwatch Administration" at the top. Below the title, on the left, is the text "Filter by country:". To its right is a dropdown menu with the text "Select filter..." and a downward arrow. Further right is a button labeled "Close Admin".

You can filter the list of users and groups you will see by country. To see all users and groups select "**** All ****" from the dropdown list. The database contains a list of countries with Sandwatch groups. To add a country that is not yet in the database select "Other". A line will appear for entry of a new country name:



The image shows the same light blue rectangular box as before, but with the dropdown menu now displaying "Other...". Below the dropdown menu, on the left, is the text "New Country". To its right is a text input field. Further right are two buttons labeled "Save" and "Cancel". The "Close Admin" button remains in the top right corner.

After selecting your filter you will get a tabbed page:

The screenshot shows the 'Users' tab interface. At the top, there are tabs for 'Users' and 'Groups'. Below the tabs, there is a 'Select user' dropdown menu with 'Select one...' as the current selection. To the right of this are three buttons: 'Save Changes', 'Cancel', and 'Delete User'. The main form area contains the following fields: 'Username' (text input), 'First name & initials' (text input), 'Last name' (text input), 'Country' (text input), 'Role' (dropdown menu showing 'Guest'), and a note: 'For existing record, leave password blank to retain present value.' Below this note are two password fields: 'New password' and 'Repeat password'.

For each new user enter username, name and country. If you have filtered on a country, that country is entered by default. Set a role for the user. If you are adding a user that will be a Group Leader set their role to Beach Administrator.

Enter an initial password for the user. The user can reset this to a value of their choice by clicking My Profile when they first log in.

For each user when finished save changes by clicking Save Changes button.

When you want to add a group first add a user that will be the Group Leader. Then click the Groups tab to get:

The screenshot shows the 'Groups' tab interface. At the top, there are tabs for 'Users' and 'Groups'. Below the tabs, there is a 'Select group' dropdown menu with 'Select one...' as the current selection. To the right of this are three buttons: 'Save Changes', 'Cancel', and 'Delete Group'. The main form area contains the following fields: 'Name of Sandwatch Group' (text input), 'Country' (text input), and 'Name of teacher/group leader' (dropdown menu with 'Select one...' as the current selection).

To add a new group select "Add new group..." from the dropdown. The user you just entered will be the default value for the Group Leader. If you set your country filter to a country, that country will be set for the group. If you set your country filter to "*** All ***" set the country from the dropdown list provided.

When finished save changes by clicking Save Changes button.

Beach Administrator

When a Beach Administrator logs in and clicks the Admin button they will see a screen like the following for their Group:

Beach Administration

Group: Brevard Secondary Sandwatch Close Admin

Group Members **Beaches**

Select member: james dimond Save Changes Cancel Delete Member

Username: jdimond

First name & initials: james

Last name: dimond

Country: Fiji

For existing record, leave password blank to retain present value.

New password:

Repeat password:

Use the Group Members tab to add/edit members of your group. You can add or update their password but the user can reset it when they first log in.

For each member when finished save changes by clicking Save Changes button.

After entering members click the Beaches tab to add/edit Beaches or set Beach Editors. You will get a tab like:

Beach Administration

Group: Brevard Secondary Sandwatch Close Admin

Group Members **Beaches**

Select beach: Long Bay Save Changes Cancel Delete Beach

Name of Beach: Long Bay

Assign up to 2 beach editors.

Viewers		Editors
	→	james dimond
	←	

All the members of the group that have not been assigned as Beach Editors will be in the list on the left. To assign one as an editor click that member and then click the right arrow. To unassign an editor click the editor in the list on the right and then click the left arrow.

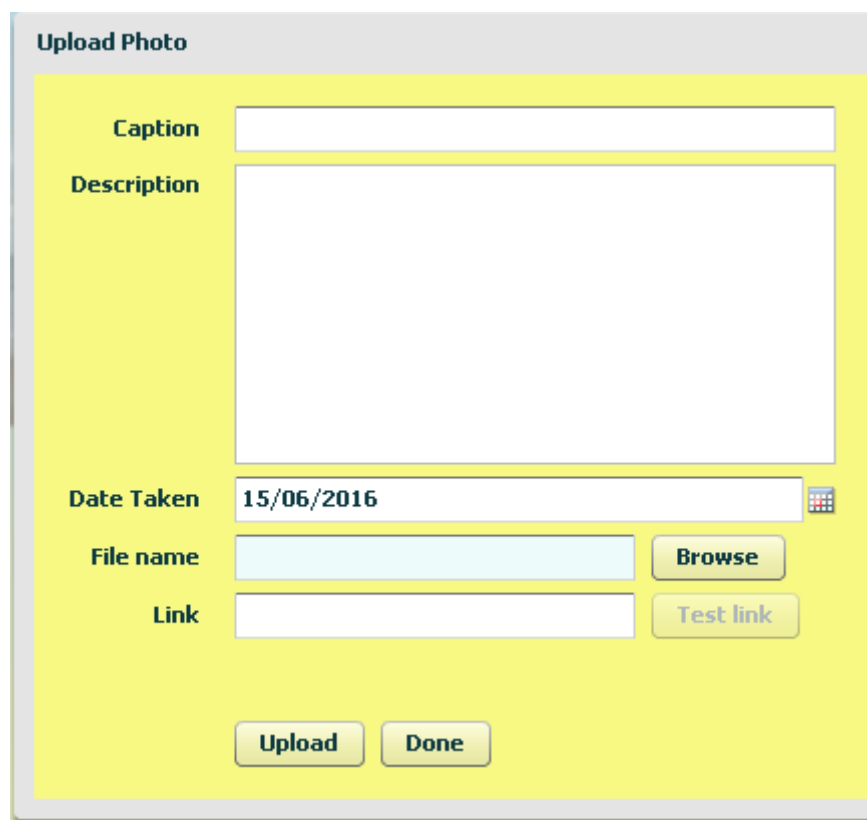
When finished save changes by clicking Save Changes button.

Version 1.3 Update

The main changes in version 1.3 affect Photo Pages and Administration.

Changes to Handling Photos

You can now add an internet link to any photo on a photo page. You could use this link to access a video you have uploaded to YouTube or a page in your group's website. The upload photo form now looks like:



The screenshot shows a web form titled "Upload Photo". The form has a yellow background and a grey border. It contains the following fields and buttons:

- Caption:** A single-line text input field.
- Description:** A multi-line text input field.
- Date Taken:** A text input field containing "15/06/2016" with a small calendar icon to its right.
- File name:** A text input field with a light blue background, followed by a "Browse" button.
- Link:** A text input field, followed by a "Test link" button.
- Buttons:** At the bottom of the form are two buttons: "Upload" and "Done".

In the Link field add the Internet address of the item you want to link to. As soon as you enter anything in this field the Test link button will become active. Click it to test your link.


The link will now be displayed with the photo:

Beach Photo: Looking east

Date Taken

Description

Link <https://www.youtube.com/watch?v=qT8TYs7ZL0Q>

A photograph of a sandy beach with driftwood and palm trees in the background. The beach is wide and sandy, with several pieces of driftwood scattered across it. In the background, there are palm trees and a line of vegetation. The sky is overcast with grey clouds. The ocean is visible on the right side of the image, with white foam from the waves washing onto the shore.

Users can now access your linked item by clicking the hyperlink text. This target will be displayed in a new browser tab and will not close the displayed photo.

Notice also that (if you have rights to add a photo) there is now an Edit button beside the Done button. Formerly you could only change the Caption or Description by deleting a photo and re-adding it. Now clicking the Edit button will bring up a form that allows you to edit any of the text information about your photo:

Edit Photo Text

Caption Looking east

Description

Date Taken 04/09/2013

Link https://www.youtube.com/watch: **Test link**

Save **Done**

Make the changes you want then click Save. When finished click Done.

Changes to Administration

Sandwatch Administrators (and Country Administrators) can now access, add, edit and delete group members and beaches for the groups they administer when helping the Beach Administrator. For such administrators the group tab will now appear as:

Users **Groups** **History**

Select group Add new group... Save Changes Cancel Delete Group

Group Members and Beaches

Name of Sandwatch Group

Country Fiji

Name of teacher/group leader Select one...

Once a group has been added or edited the administrator can click the Group Members and Beaches button to access and edit group members and beaches for the group. This will access the same tabs available to the Beach Administrator.