



LRC Drupal Template Documentation

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Indicia Team

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The LRC Drupal Template provides a starting point for building a local environmental record centre website which features a standard menu structure for you to add content to, online recording and reporting of wildlife records and simple functionality for supporting local recording groups. Wildlife recording functions are provided by integration with the [Indicia](#) toolkit.



This guide introduces the basic skills you will need to manage and build upon your new website. It contains tutorials which are designed to be run through in a development or testing environment but the principles can then be applied when you configure your live environment.

Installing the LRC Drupal Template

1.1 Preparing to install the LRC Drupal Template site

There are a couple of different ways you can set up the LRC Drupal Template website. Before you start though, you need a webserver ready to install onto. This might be a local machine you are using for development, your existing live web server, or a virtual server or shared web space rented from an Internet Service Provider. The webserver can run on any operating system and must meet the following requirements:

- Support for PHP 5.2 or higher (5.3+ preferred)
- At least 64MB memory limit for PHP, 80MB+ preferred
- MySQL database version 5
- Support the cUrl extensions for PHP to allow it to communicate with the BRC Community Warehouse.
- A tool allowing you to access the MySQL database server such as PhpMyAdmin, MySQL Query Browser or CPanel

If you are installing a local development server, then installing a web-server stack makes the setup process relatively easy. Here are a few examples for your consideration:

Windows

- [WampServer](#)

Mac

- [MAMP](#)

Any operating system

- [XAMPP](#)


























Before starting the installation process, you will need to create a MySQL database ready for Drupal to use. The installation documentation for **Instant Indicia** (which is a Drupal 6 product) cover the [steps you need to create the MySQL database](#). Alternatively, any tutorial on installation of vanilla Drupal will explain the steps required, as the LRC Drupal Template has no special requirements of the MySQL setup.

1.2 Installing the LRC Drupal Template from backup

The LRC Drupal Template can be installed from a backup of the site. This is the simplest way to get started. The site backup is provided as 2 files:

- **lrctemplate.zip** - a backup of the folder structure required by Drupal. This is the same as a download of Drupal from drupal.org but with the addition of a number of modules and theme files required by the LRC Drupal Template.
- **lrctemplate.mysql.gz** - a backup of the MySQL database.

The first step is to unzip your **lrctemplate.zip** file into the place you want your website files to run from, as dictated by the web server setup. For this illustration, I've made a folder called **lrc** in the web root folder of an installation of **XAMPP** running on OS X. This means that my development site copy will be available at `http://localhost/lrc`. Into this folder, I've unzipped the **lrctemplate.zip** file so that the folder structure is as follows:

Name	Date Modified	Size	Kind
 authorize.php	15 January 2014 19:43	7 KB	TextW...ument
 CHANGELOG.txt	15 January 2014 19:43	86 KB	Plain Text
 COPYRIGHT.txt	15 January 2014 19:43	1 KB	Plain Text
 cron.php	15 January 2014 19:43	720 bytes	TextW...ument
▶  includes	Today 14:22	--	Folder
 index.php	15 January 2014 19:43	529 bytes	TextW...ument
 INSTALL.mysql.txt	15 January 2014 19:43	1 KB	Plain Text
 INSTALL.pgsql.txt	15 January 2014 19:43	2 KB	Plain Text
 install.php	15 January 2014 19:43	703 bytes	TextW...ument
 INSTALL.sqlite.txt	15 January 2014 19:43	1 KB	Plain Text
 INSTALL.txt	15 January 2014 19:43	18 KB	Plain Text
 LICENSE.txt	1 November 2013 10:14	18 KB	Plain Text
 MAINTAINERS.txt	15 January 2014 19:43	8 KB	Plain Text
▶  misc	Today 14:22	--	Folder
▶  modules	Today 14:22	--	Folder
▶  profiles	Today 14:23	--	Folder
 README.txt	15 January 2014 19:43	5 KB	Plain Text
 robots.txt	15 January 2014 19:43	2 KB	Plain Text
▶  scripts	Today 14:23	--	Folder
▶  sites	Today 14:23	--	Folder
▶  themes	Today 14:32	--	Folder
 update.php	15 January 2014 19:43	20 KB	TextW...ument
 UPGRADE.txt	15 January 2014 19:43	10 KB	Plain Text
 web.config	15 January 2014 19:43	2 KB	Unix E...ble File
 xmlrpc.php	15 January 2014 19:43	417 bytes	TextW...ument
Macintosh HD ▶ Applications ▶ XAMPP ▶ xamppfiles ▶htdocs ▶ lrc			

Note that I've also created a MySQL database called **lrc** and user account ready to install against as described in the *previous step*.

1.2.1 File permissions

Depending on your operating system, you may need to change file permissions to get Drupal to run properly. The Drupal folder and its contents should generally be all read-only to the web server process with a few exceptions:

- The `sites/default/files` folder should be writeable.

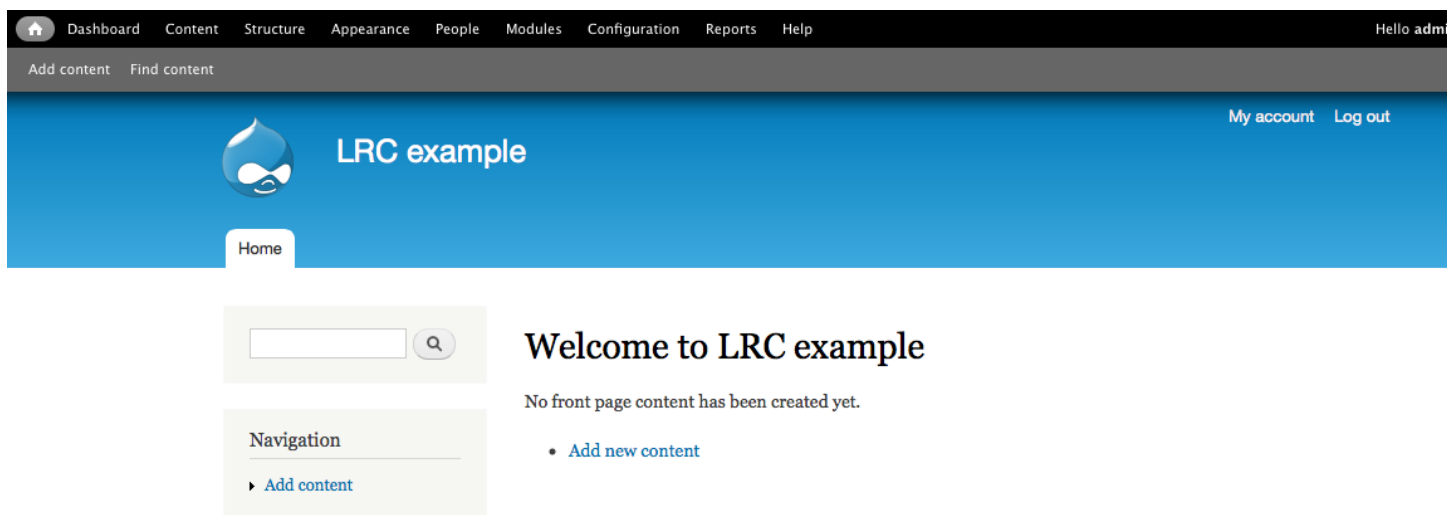
- The `sites/all/modules/iform/client_helpers/cache` folder should be writeable.
- The `sites/all/modules/iform/client_helpers/upload` folder should be writeable.

You should also at this point copy the file `default.settings.php` and rename the new file `settings.php`. This latter file will need to be writeable during the installation process only.

1.2.2 Drupal installation

Now you are ready to run the Drupal installation script. This process is exactly the same as any other installation of Drupal, so you can [refer to the standard documentation](#). Follow the steps described for Drupal 7 installation. Don't forget to make a note of the **site maintenance account** details you specify in the installation wizard, as these are used to gain full access to the site.

Once the script has completed, you'll be presented with a **Visit your new site** link so click on this to enter the site proper.



1.2.3 Restoring the site database backup

At the moment, you've got a basic installation of Drupal with the default Drupal theme, with no content, menus, custom modules, online recording facilities or themes setup. Fortunately all the files required for all this are already in place, so we just need to restore the MySQL database which holds all the configuration information required. The backup and restore process used here depends on a module called [Backup & Migrate](#) so the first thing we need to do is to enable this module.

1. Click on the **Modules** menu item in the black menu bar across the top of the page. We'll refer to this as the **admin toolbar** from now on.
2. You are now looking at a list of all the downloaded modules for Drupal with the enabled modules ticked. There are of course many more modules available on drupal.org. Search for the module called **Backup and Migrate** then tick it:

The screenshot shows the Drupal Modules page. The 'Modules' tab is selected in the top navigation bar. Below the navigation bar, there are links for 'Add content' and 'Find content'. The main content area is divided into two sections: 'INDICIA REPORTING' and 'OTHER'. The 'INDICIA REPORTING' section contains a table with one row: 'Explore records' (version 7.x-1.0, description: 'Explore pages, including associated view record and species details pages. Requires: Text (enabled), Field (enabled), Field SQL storage (enabled)'). The 'OTHER' section contains a table with five rows: 'Backup and Migrate' (version 7.x-2.8, description: 'Backup or migrate the Drupal Database quickly and without unnecessary data.'), 'Entity API' (version 7.x-1.3, description: 'Enables modules to work with any entity type and to provide entities. Required by: Entity tokens (disabled), Indicia mobile module (disabled), Indicia remote download (disabled), UUID default entities example (disabled), UUID Features (disabled), UUID Services (disabled), UUID Services Example (disabled)'), 'Entity tokens' (version 7.x-1.3, description: 'Provides token replacements for all properties that have no tokens and are known to the entity API. Requires: Entity API (disabled)'), 'LoginToboggan' (version 7.x-1.3, description: 'Improves Drupal's login system. Required by: LoginToboggan Content Access Integration (disabled), LoginToboggan Rules Integration (disabled), LoginToboggan Variable Integration (disabled)'), and 'LoginToboggan Content Access' (version 7.x-1.3, description: 'Integrates LoginToboggan with Content Access module, so that Non-validated users are handled correctly').

3. Scroll to the bottom of the page and click **Save configuration**.
4. **Backup and Migrate** will add an extra page to your website allowing administrators to backup and restore the MySQL database which drives the website. To access this page, click **Configuration** on the admin toolbar, then find and click the **Backup and Migrate** link on the right of the page.
5. We want to restore a database, so click the **Restore** tab.

The screenshot shows the 'Backup and Migrate' page in Drupal. The 'RESTORE' tab is selected. The page has a breadcrumb trail: 'Home » Administration » Configuration » System » Backup and Migrate'. A warning message states: 'You must specify a private file system path in the file system settings to backup to the server. Restoring will delete some or all of your data and cannot be undone. Always test your backups on a non-production server!'. Below the warning, there is a section for 'Upload a Backup File' with a 'Choose File' button and the text 'no file selected'. A note says: 'Upload a backup file created by this version of this module. For other database backups please use another tool for import. Max file size: 128 MB'. There is an 'ADVANCED OPTIONS' section with a 'Restore now' button. At the bottom, it says: 'Or you can restore one of the files in your saved backup destinations.'

6. Click the **Choose file** button then browse to and select the **lrctemplate.mysql.gz** file.
7. Click **Restore now**.

That's the basic install process done. You can skip forward to the *Post installation steps*.

1.3 Post installation steps

Although everything is now installed and in place, there are a few more configuration steps required to get your site up and running.

1.3.1 Configure the Drupal file system

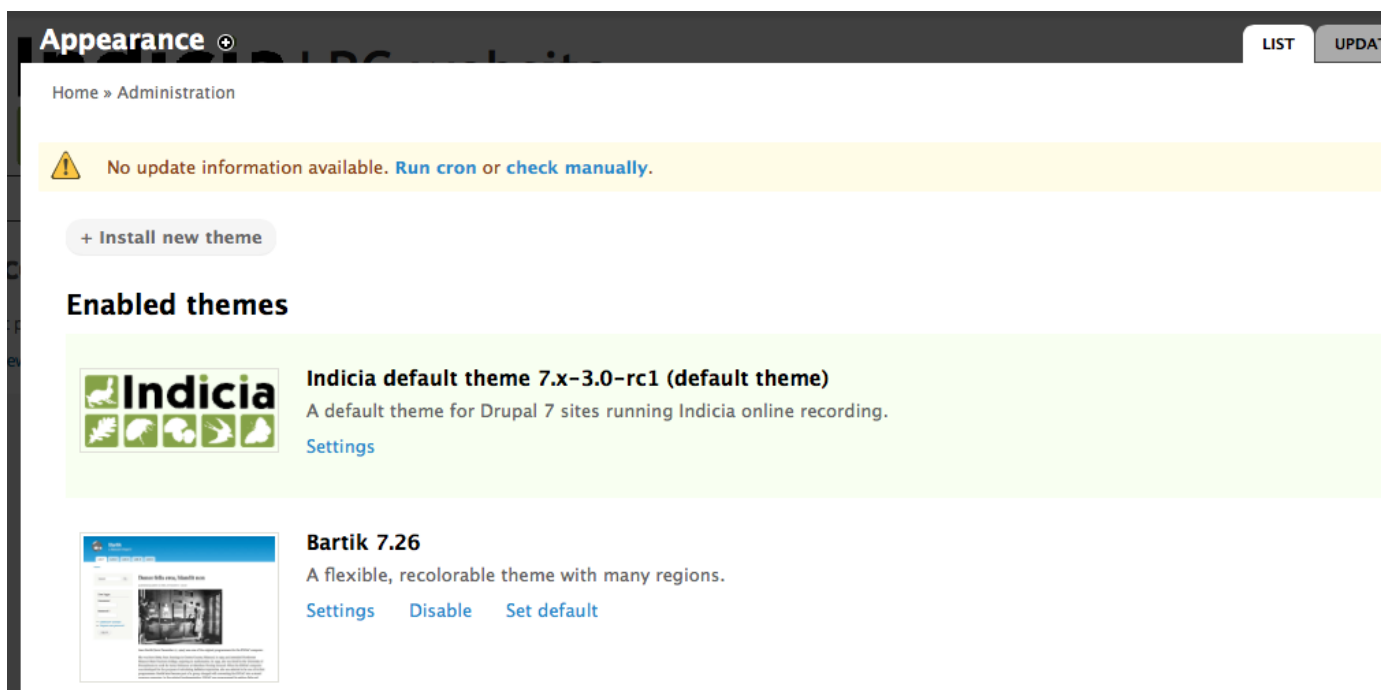
Since the site has been restored from a different environment, Drupal might attempt to save temporary files into the wrong location. To fix this:

1. Select **Configuration** from the **admin toolbar** then select **File system** in the **Media** section on the left.
2. Clear the **Temporary directory** box then click the **Save** button. This lets Drupal work out the best path for temporary files in your environment.

1.3.2 Initialise the theme

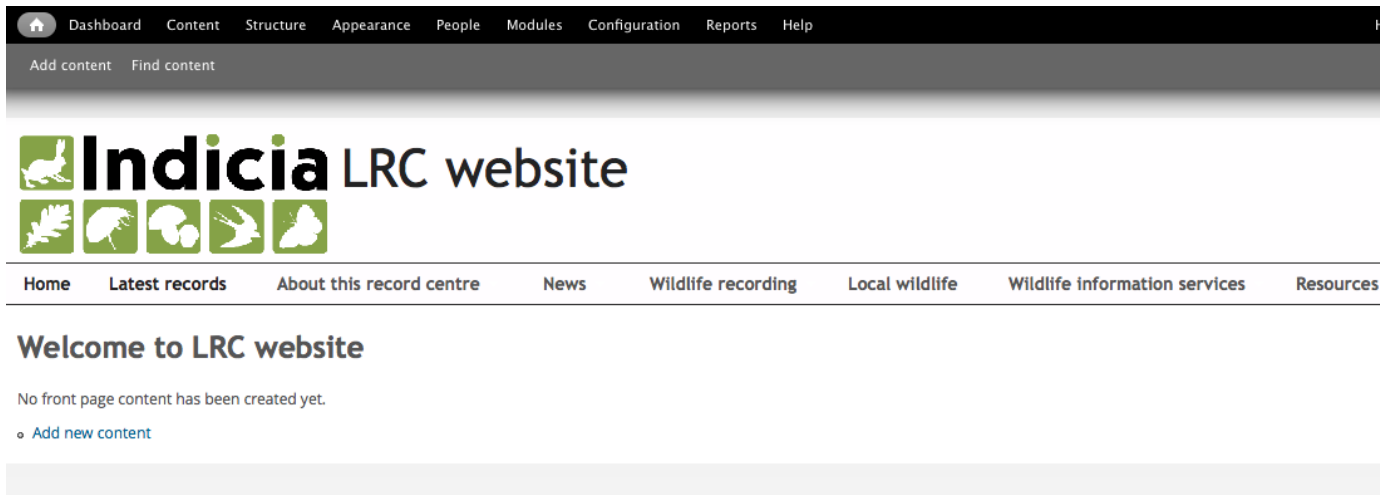
The LRC Drupal Template is provided with a custom theme which defines the appearance of the entire site. This theme is highly configurable, so you can change everything from the banner to the fonts to the colour schemes. Although we'll learn about configuring the theme later, an important step in the installation process is to let the theme write out its stylesheet and other files according to the current configuration settings. Don't worry too much about the details of this yet, just follow these steps:

1. Click on the **Appearance** link in the top admin toolbar, then click on the **settings** link for the Indicia default theme:



1. Scroll all the way to the bottom of the page then click **Save Configuration**. This lets all the settings you can configure on this page be compiled into stylesheets and other site template files.

2. Click the home icon in the top left corner of the page to check that your site is displaying OK.



1.3.3 Clean URLs

Drupal allows the URL your pages are accessed via to be made more readable. For example, the URL `http://www.example.com/?q=my-page` can be rewritten as `http://www.example.com/my-page`, making the URLs easier to remember. This setting requires a compatible configuration of the web server and may not be possible on all servers. To enable the setting, click the **Configuration** link in the admin toolbar, then click the **Clean URLs** link in the **Search and metadata** section. Your site will either detect that clean URLs are supported, in which case you can just click the **Enable Clean URLs** checkbox and click the **Save configuration** button, or if Drupal thinks that clean URLs are not supported then you will be presented with a **Run the clean URL test** button. Refer to the [Drupal handbook](#) for more information in this case.

1.3.4 Cron

Cron allows Drupal to run background tasks such as search indexing. Refer to the [Drupal documentation](#) for information on how to set this up.

1.3.5 Initialising Indicia

The LRC Drupal Template site, like all other Indicia powered websites, needs a website registration on the appropriate warehouse, in our case the BRC Community Warehouse. This provides a **website ID** and **website password** which your website will need in order to securely communicate with the warehouse's web services. If you don't already have these details, then please contact BRC. You can find further notes on this setup task on the [Indicia documentation website](#).

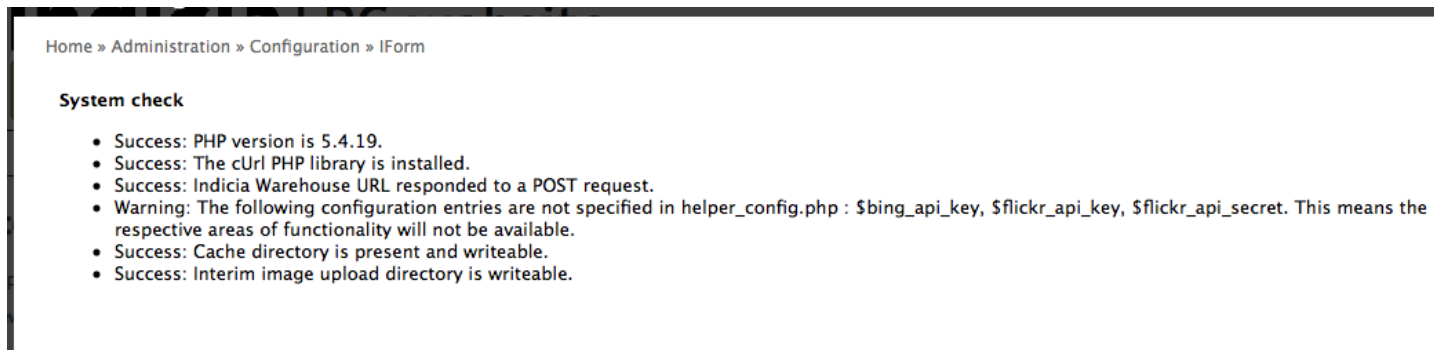
Now, click on the Configuration link in the admin menu bar at the top of your Drupal site and click the **Settings** link in the **IForm** section, then fill in the following details:

1. This page has already been configured to point to the BRC Community Warehouse and you can leave the **Indicia Warehouse** configuration option. If developing locally or using the **BRC test warehouse** then you can configure the URL to the warehouse here.
2. Set the **Indicia Website ID*** to your website registration's ****website ID**.

3. Set the **Password** and **Confirm password** prompts to your website registration's **website password**. This should be a secure password as it is used to authenticate record submissions from your website to the warehouse as well as all your site's requests for report data.
4. The **GeoPlanet API Key** is used to access the **Yahoo! GeoPlanet** place searching webservice, a handy addition to your online recording forms allowing people to search for towns and villages near to their sites. Follow the link on the configuration page to access the Yahoo! page where you can register to receive your own key which needs to be pasted into this box. The registration process is free and fairly quick.
5. **Bing API Key** is only required if you plan to use the Bing map layers. Google layers no longer require an API Key.
6. **Map Settings** allows you to pan and zoom an example map to show your record centre's locality. This will then be used as a default setting for recording forms and reports. There is also a list of map reference systems which you can use to configure the default behaviour of your forms. The default is for British National Grid support only, but you might want to tick the box to enable GPS Lat Long coordinates if you feel that is appropriate for your site.

Tip: If you shift drag on the map, you can quickly set the bounding box of an area to zoom into.

Save the settings page when you are done. Now, we want to check that the settings are OK. Click on the **Configuration** link in the admin toolbar at the top, scroll down and find the **IForm Diagnostics** link and click it. You will note a warning about a few possible API keys being missing – don't worry as these are APIs which we are unlikely to use and where the key can be added to the configuration later if needs be. But, ensure that all the other checks this page outputs indicate success:



The most likely type of failure you might observe at this point is for either the cache directory or interim image upload directories to be not writable by the web server. If this happens then the two folders you need to ensure are writeable are:

- sites/all/modules/iform/client_helpers/cache
- sites/all/modules/iform/client_helpers/upload

If you are not sure how to make these folders writable then it may be best to ask the administrator of your server.

1.3.6 Create your wildlife survey

The **LRC Drupal Template** is provided with wildlife recording forms that capture ad-hoc sightings as well as lists of records. You must create a **survey** on the warehouse into which records will be stored.

Tip: On the warehouse, a survey means a set of observations with a common purpose and methodology. The survey defines the attributes that are available for recording, for example a bat survey might capture information about the

roost, whereas a plant survey might capture a DAFOR abundance. In our case, we'll start out with a casual survey for ad-hoc sightings, but will learn how to setup other surveys later.

As part of the initial setup required to get the **LRC Drupal Template** site up and running, you will need to ask someone with access to the warehouse database to clone the template survey for you. The survey must be created first using the warehouse user interface. Setting up the survey's structure can be done with the following database query which is correct for the live BRC Community Warehouse, replacing *n* with the ID of the survey you created:

```
select indicia.f_clone_survey(185, n, 1)
```

Once the survey exists on the warehouse, we need to link the survey to our recording forms. From your site's home page, select **Wildlife recording** from the main menu, then select the **Submit a sighting** link. This will bring you to the submit a single sighting form, currently incorrectly configured as it needs to be pointed to your survey on the warehouse. Because you are logged in with admin rights, you can access the page's **Edit** view from here so click on the **Edit** tab just below the page title. This shows a configuration form where you can change a huge number of settings about the online recording functionality of the current page. Scroll the page down a bit and in the **Other IForm Parameters** section, drop down the **Survey** control and choose your survey. There should only be one available as this will only show the surveys linked to your website registration. Scroll to the bottom and press the **Save** button when you are done.

Now, repeat these steps, this time for the **Submit a list of sightings** form.

In this section, we are going to take a look at some everyday Drupal skills that you will need in order to populate the site's content.

2.1 Site information

An important step in the setup of our website is to provide basic site information such as the name of the site. Click on **Configuration** in the **admin toolbar** then select the **Site information** link from the **System** section on the right. Fill in the following settings:

- **Site name** - the name of your site, which will generally appear in the header area of every page.
- **Slogan** - only needed if you want a “strapline” under your site name.
- **Email address** - provide the email address that any emails sent out by your website will come from, e.g. those sent out during the account registration process. It is vital that *this email address is from the same domain as the main site* otherwise emails are likely to be treated as spam. Generally you do not need to allow users to reply to these emails, so it doesn't matter if it is actually a real monitored email address. Therefore if your site address is `http://www.example.com` then a good email address might be `noreply@example.com`.

Other settings on this page can be left as they are at the moment. Save the configuration when you are done.

2.2 Theming

One of the key features of a content management system such as Drupal is that you can control the appearance of the entire site using an easily switchable theme. Site banner, fonts, colours and positions of various components are all controlled using the theme. This approach is a vast improvement over static HTML websites where a change to the site's page structure requires every page of the site to be edited.

The LRC Drupal Template is provided with a purpose built theme called **indiciatheme**. This theme has the following features:

- Supports changing the site colour scheme, fonts and many other settings via configuration rather than code.

- Built in support for customising the header/banner images.
- Responsive so it works well on everything from a smartphone to a desktop monitor.
- Some built in styles help it to work well with Indicia online recording.

Having said all this, don't forget that you can install a different Drupal theme selected from drupal.org or if you are feeling brave, [write your own](#). We'll stick to customising the **indiciatheme** for now as there are plenty of online resources for Drupal theming in general when you are ready.

2.3 Tutorial - configuring indiciatheme

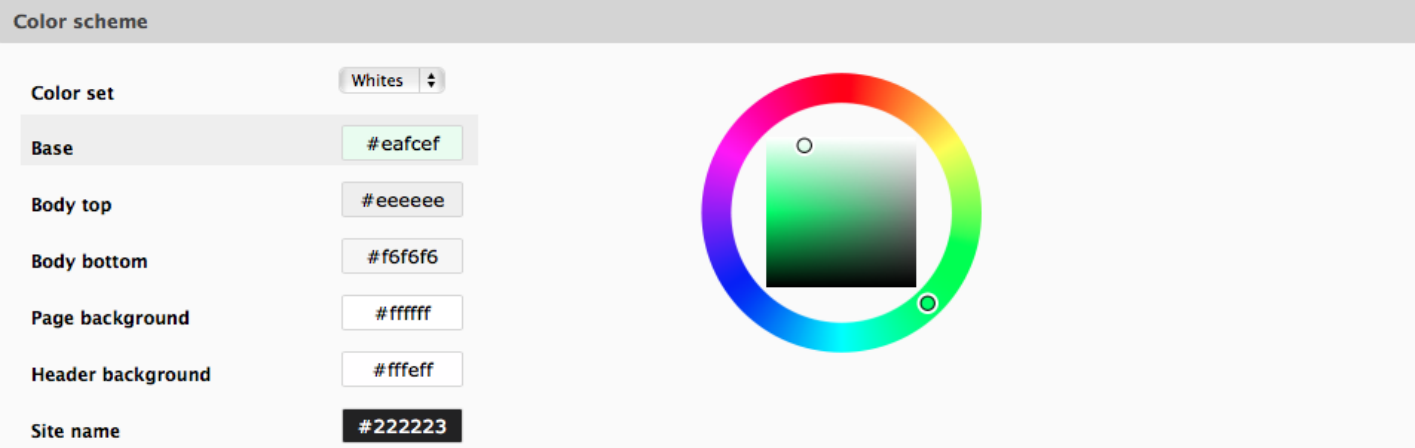
In this tutorial we're going to take a tour of the configuration options that are available for the **indiciatheme** Drupal theme provided with the LRC Drupal Template.

2.3.1 Colours

Although you can of course use the traditional approach of using stylesheets to change the site colours, **indiciatheme** supports the Drupal [Color module](#) (sic) which allows you to take full control over the colours used on your site without touching code via an easy to use configuration form.

Note: The purists amongst you might be quaking at the thought, since a flexible colour system like this must surely place inline CSS code into every web page? Fortunately this is not the case; when you save the colour configuration the Color Module cleverly rewrites the theme's CSS files with the updated colour information so there is no need for untidy inline style information. It can even regenerate image files used, swapping one colour gradient for another.

The colour settings for your site can be found by selecting **Appearance** on the admin menu, then clicking **settings** for the **Indicia default theme**. Scroll down the page until you find a section called **Color scheme**. Let's change the colour of the background behind the main site menu. Simply click inside the text box for **Main menu background** then use the colour wheel to the right to change the selected colour. If you know the [CSS colour code](#) you can type that in directly instead of using the colour wheel. If using the colour wheel, note that the circle of colours is used to set the hue only, you then need to click in the square in order to set the saturation and brilliance of the colour.



Color scheme	
Color set	Whites ▾
Base	#eafcef
Body top	#eeeeee
Body bottom	#f6f6f6
Page background	ffffff
Header background	fffeff
Site name	#222223

Try changing the **Main menu background** to red so you can clearly see the effect and then save the configuration page. Now, return to the theme settings page as before and try experimenting with the different colour options available to see the effect on your site.

Tip: If you get in a mess with your site colours, you can reset to the default by choosing **Whites** in the **Color set** control at the top of the list of colours.

2.3.2 Logo and header

The header of your site will by default consist of 3 components:

- A logo image justified to the left,
- The site name, displayed to the right of the logo,
- A user menu, justified to the right.

The theme also has built in support for a banner image which can be displayed behind the entire header area.

To change the logo, select **Appearance** from the admin toolbar, then select **Settings** for the **Indicia default theme**. Click on **Logo image settings** to expand this section then untick the **Use the default logo** checkbox. This shows a control for specifying a path to a custom logo or uploading a custom logo image:

▼ Logo image settings

If toggled on, the following logo will be displayed.

☐ Use the default logo

Check here if you want the theme to use the logo supplied with it.

Path to custom logo

The path to the file you would like to use as your logo file instead of the default logo.

Upload logo image

Choose File

no file selected

If you don't have direct file access to the server, use this field to upload your logo.

Click the **Choose file** button then browse to select an image on your local disk. You might want to first download an image to use, e.g. by visiting your existing site and right clicking on the logo, then selecting **Save image as....** Once you have chosen an image file click **Save configuration** to apply the settings changes, then click the home button in the top left of the **admin toolbar** to check that the site looks OK.

Changing the header image is done in a similar way, except that the **Noggin module** is used to facilitate this, and some default background header images are provided. Return to the theme's settings page and this time expand the **Header image settings** section right at the bottom of the page. In the **Selected header** control choose the **Camera lens on white** image. Finally choose **Right** as the option for **Image alignment - horizontal** and save the settings, then check it has worked OK as before.

▼ Header image settings

Choose a graphical header, or upload a custom image.

Selected header

Camera lens on white

To have images supplied by your theme show here place them in yourtheme/header-images folder. They must be png or jpg.

CSS settings

CSS header selector

#header

The CSS selector to use when placing the header image.

Image alignment – horizontal

☐ Left

☐ Center

☒ Right

Image alignment – vertical

☒ Top

☐ Middle

☐ Bottom

Image repeat

☒ No repeat

☐ Horizontal repeat

☐ Vertical repeat

☐ Repeat

► Optional settings

2.3.3 Page width

Another aspect of the site that can be easily changed using the theme's configuration settings is the page width and behaviour on different devices. Back in the theme's settings page, you will find the **Layout & General Settings** section right at the top. There are lots of settings in this section for layouts on different devices.

Tip: Because **indiciatheme** is based on **Adaptive Theme** you'll find lots of useful information on theme configuration in the [documentation](#).

The default behaviour of our site is to use up to a maximum of 1400 pixels width on the page. If the browser is narrower than this, then the page will reduce in width. On your home page, try reducing the width of your browser and see what happens. Let's change to a fixed width site:

1. On the theme's settings page **Layout & General Settings**, make sure that the tab for **standard layout** is selected.
2. Untick the **Set a max width** checkbox.
3. Change the **Unit** option in **Set a page width** to **px**.
4. Set the **Page width** to 1200 then save the form.

Visit your home page and try gradually reducing the browser width. You will see that the page width is fixed to 1200 pixels and as you reduce the width below that limit, a scroll bar appears to allow the hidden page content to still be

accessed. Reduce the width of your browser and all of a sudden the browser's scroll bar disappears. *The page reverts to the maximum width behaviour we had before.* This is because the theme configuration has different layout settings for tablet and phones. These are triggered based on the browser width so as you reduce the browser width, you trigger the tablet layout to kick in and we've not reconfigured that to a fixed width.

If you want to know more about layout options in Adaptive Theme, there is more information in [the documentation](#). Don't forget that you can install your own Drupal theme as an alternative - **indiciatheme** is just provided as a quick way to get started. There are lots of other cool Drupal 7 responsive themes around, mostly free. Here are a few good "boilerplates" you might like to check out.

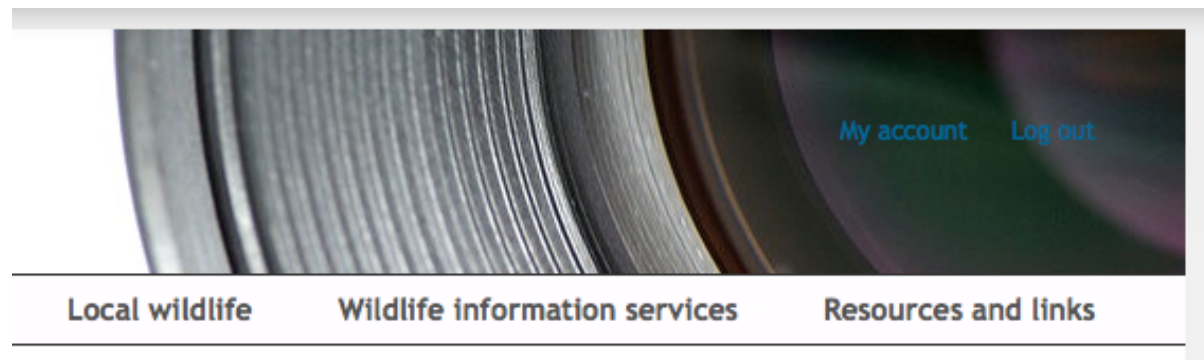
- [Omega](#)
- [Zen](#)

Reset your site to 100% width and max width 1400 pixels before continuing.

2.3.4 Custom CSS

Another feature of the theme settings page is the ability to add your own custom CSS (cascading style sheets) to the site. If CSS is new to you, then there is lots of documentation on the web such as [this](#) to get you started - it's a worthwhile skill. A nice feature of the Adaptive Theme support for custom CSS is that your styles are included rewritten into the theme's CSS files, which is far cleaner and more efficient than including the custom CSS in the header of every page.

If you visit your home page and have followed the tutorial accurately to this point, you will notice that the font colour used for the user menu is now inappropriate, since it is overlaid onto the dark background of the header image.



This is a good example of a minor style "tweak" that the custom CSS feature is ideal for fixing. If you want a more comprehensive overhaul of your site's styles, then this is not the way to do it. You should either write your own subtheme, or use an entirely new theme. So, let's see how to apply minor CSS tweaks to the site:

1. Return to the theme's settings page.
2. Scroll down to the **Extensions** section, then click on the **Custom CSS tab**.
3. Paste the following into the text box, replacing the existing content.

```
header#header .menu a {
  color: #FFFFFF;
}
```

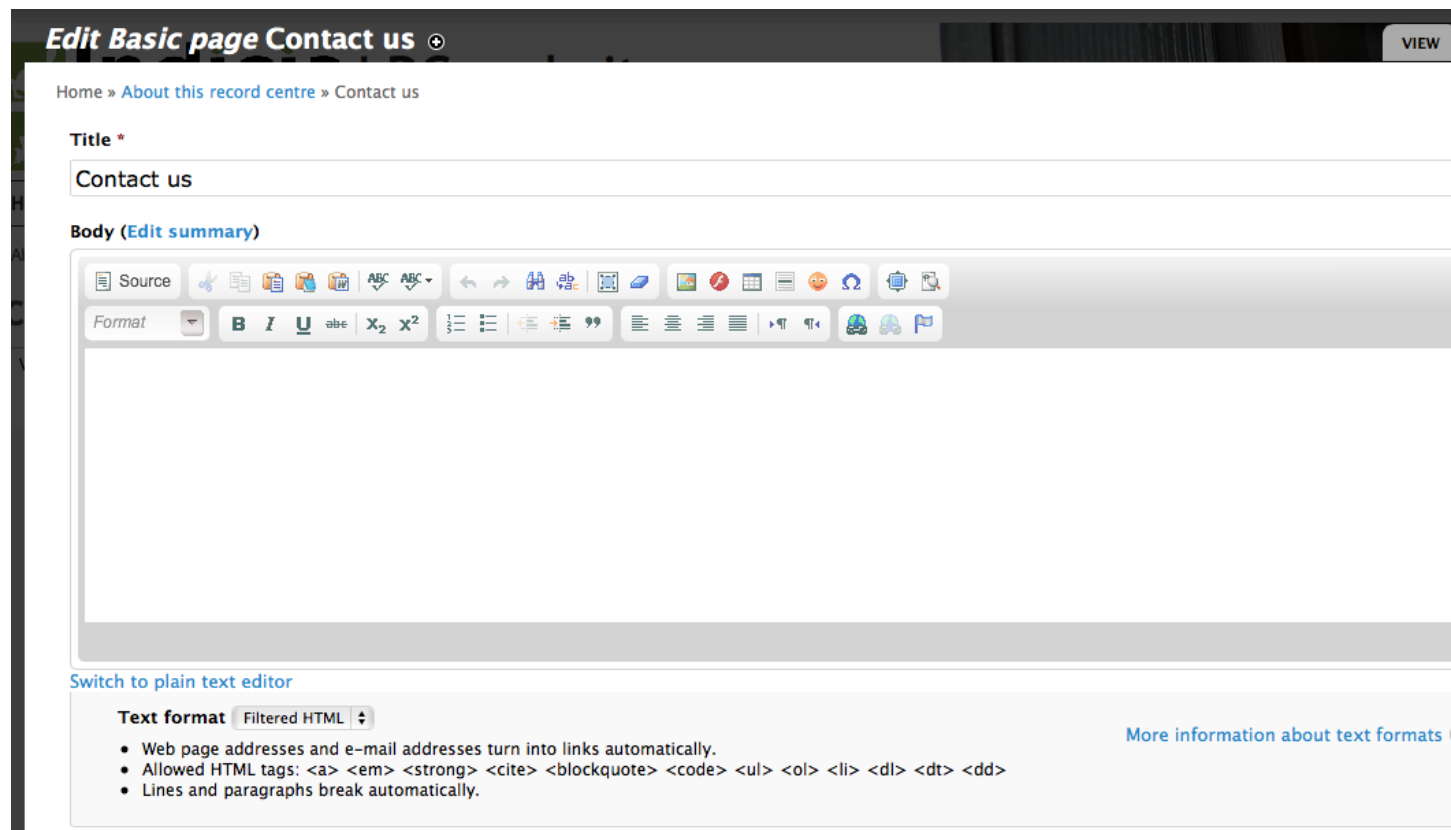
1. Save the settings page and reload your home page to check the result.



2.4 Editing content

The **LRC Drupal Template** site has a menu structure prepared for you, with several blank pages for you to fill in. We'll start by filling in the **Contact us** page from the **About this record centre** menu. The good news is Drupal has built in content editing features and, even better, the **LRC Drupal Template** already has modules installed to make text editing and formatting even easier.

Select **About this record centre** then **Contact us** from the main site menu. This takes you to the blank page provided by the template. Because we are logged in with content editing rights, there is a set of tabs at the top of the page with **View** and **Edit** options - these tabs are not shown on the page at all for users who cannot edit the page. Click the **Edit** tab to access the page editing facilities.



This is the standard Drupal page for editing content. Because we are editing a **page** (there are other content types),

the main things we need to specify are the **title** and **body**. Try filling in some body text and experimenting with the formatting toolbar to see how it works.

At the bottom of the page, there are a number of sections for different aspects of the page. Some key ones to know about are:

- **Menu settings** allows you to add or remove a menu link to a page and to choose where in the menu system it will appear.
- **URL path settings** allows you to control the path your page is accessed at. Every piece of content in a Drupal site is known internally as a **node** and is given a unique ID. Therefore by default your page might have a path such as `http://www.example.com/node/15` or `http://www.example.com/?q=node/15` if clean URLs are disabled. In this section you can see that we have overridden the **URL alias** to “about/contact” making the equivalent URL <http://www.example.com/about/contact>.
- **Publishing options** allows you to set pages as unpublished, so that you can work on them in several iterations before publishing them to other site users.

As with many aspects of Drupal, there are lots of options here which can make things look a bit complex at first. However, the good news is that the Drupal community is a big and helpful place to be - there are lots of tutorials around and people willing to help with your questions. As an example, the [nodes documentation](#) has links to lots of useful information on the content editing process.

2.5 Drupal Menus

We’ve already encountered the Drupal menu system a couple of times so far in this documentation. Let’s take a look in more detail and pick up a few tips on the way.

Drupal’s menus each consist of a hierarchy of links to various pages on the site. There can be any number of menus in a Drupal site and you have already seen the **main menu** and **user menu** running on your template site. Menu’s can be rendered onto the page as a pretty simple HTML list by Drupal, or you can write code or (more likely) install a module which outputs the menu in any way you see fit. Our site already has one such module installed, [Superfish](#), which converts our simple menu hierarchies into nice drop down menus which remain accessible and work well across devices. It’s the Superfish module which lets the menu drop down when you hover on the **About this record centre** menu item, for example. We also use another module, [Special menu items](#), to allow menu items which don’t actually link to a page such as the menu headers over each sub-menu.

To review the menus available on your site, click the **Structure** link in the **admin toolbar** then click the **Menus** link. This takes you to a page listing the available menus:

Home » Administration » Structure

[+ Add menu](#)

Title	Operations
Features Menu items for any enabled features.	list links edit menu
Main menu The <i>Main</i> menu is used on many sites to show the major sections of the site, often in a top navigation bar.	list links edit menu
Management The <i>Management</i> menu contains links for administrative tasks.	list links edit menu
Navigation The <i>Navigation</i> menu contains links intended for site visitors. Links are added to the <i>Navigation</i> menu automatically by some modules.	list links edit menu
User menu The <i>User</i> menu contains links related to the user's account, as well as the 'Log out' link.	list links edit menu

There are a few menus here, some created by the Drupal core, some by modules added to our site. We're only using the **Main menu** and **User menu** on our site at the moment. Click the **list links** link by the **Main menu** to view the links for our menu. This page shows the complete layout of our menu and provides handy drag-handles so that you can re-order menu items and even move them between different menus.

Home » Administration » Structure

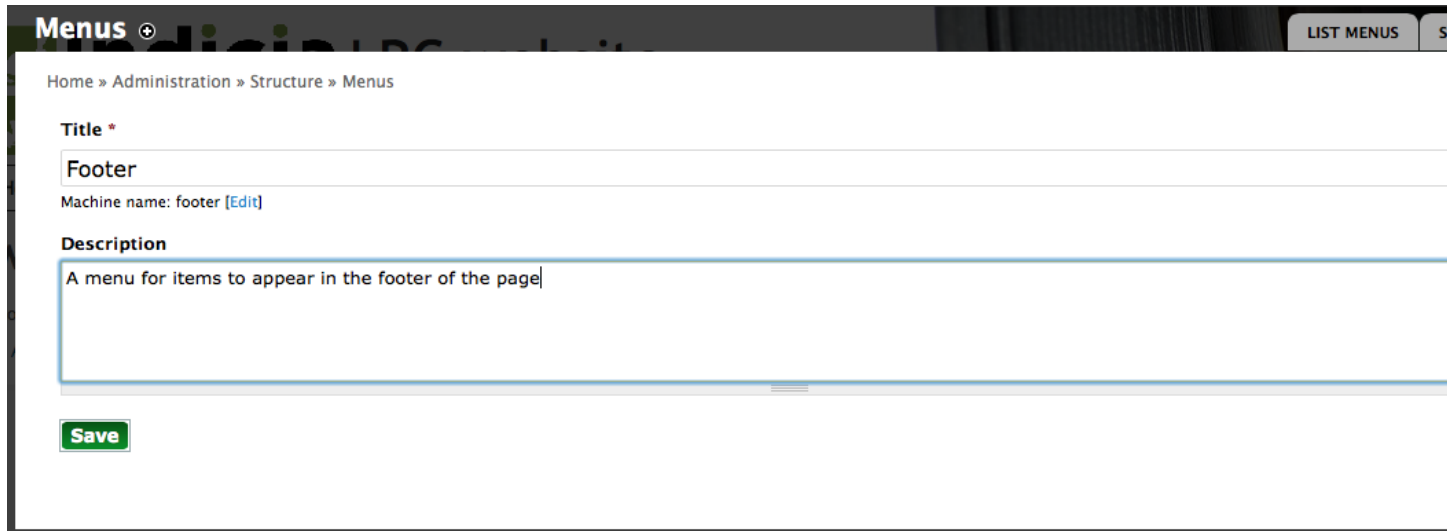
[+ Add menu](#)

Title	Operations
Features Menu items for any enabled features.	list links edit menu
Main menu The <i>Main</i> menu is used on many sites to show the major sections of the site, often in a top navigation bar.	list links edit menu
Management The <i>Management</i> menu contains links for administrative tasks.	list links edit menu
Navigation The <i>Navigation</i> menu contains links intended for site visitors. Links are added to the <i>Navigation</i> menu automatically by some modules.	list links edit menu
User menu The <i>User</i> menu contains links related to the user's account, as well as the 'Log out' link.	list links edit menu

Have a practice moving menu items around and remember to click the **Save configuration** button if you want to save your changes.

2.5.1 Adding a footer menu

As Drupal allows any number of different menus, let's create a menu to appear on our page footer. Return to the page listing the menus (use the site **breadcrumb trail**, or click **Structure** then **Menus again**). This time, click the **Add menu** button. The menu settings popup which appears is pretty simple, so fill it in to describe your menu. There is no need to worry too much about exactly what you specify here as it is just information for site administrators and won't be shown to the public. Click the **Save** button when done.

The screenshot shows the 'Menu' configuration page in Drupal. At the top, there's a breadcrumb trail: 'Home » Administration » Structure » Menu'. The page title is 'Menu' with a plus icon. Below the title, there's a text field for 'Title' containing the word 'Footer'. Underneath, it says 'Machine name: footer' with an '[Edit]' link. There's a 'Description' section with a text area containing the text 'A menu for items to appear in the footer of the page'. At the bottom left of the form is a green 'Save' button. On the right side of the page, there are two buttons: 'LIST MENUS' and a partially visible 'S' button.

After saving the menu settings, Drupal takes you to the currently empty list of links so click the **Add Link** button to start populating our menu. Add a link to the existing **Contact us** page by filling in the following settings:

- Set **Menu link title** to “Contact us”
- Set **Path** to “about/contact”
- Set **Description** to “Contact this record centre”.

Leave the other settings as they are.

Menu link title *

The text to be used for this link in the menu.

Path *

The path for this menu link. This can be an internal Drupal path such as *node/add* or an external URL such as *http://drupal.org*. Enter *<front>* to link to the front page. Enter *<no-linkable item>*, enter *"<separator>"* to generate separator item.

Description

Shown when hovering over the menu link.

☒ Enabled

Menu links that are not enabled will not be listed in any menu.

☐ Show as expanded

If selected and this menu link has children, the menu will always appear expanded.

Parent link

The maximum depth for a link and all its children is fixed at 9. Some menu links may not be available as parents if selecting them would exceed this limit.

Weight

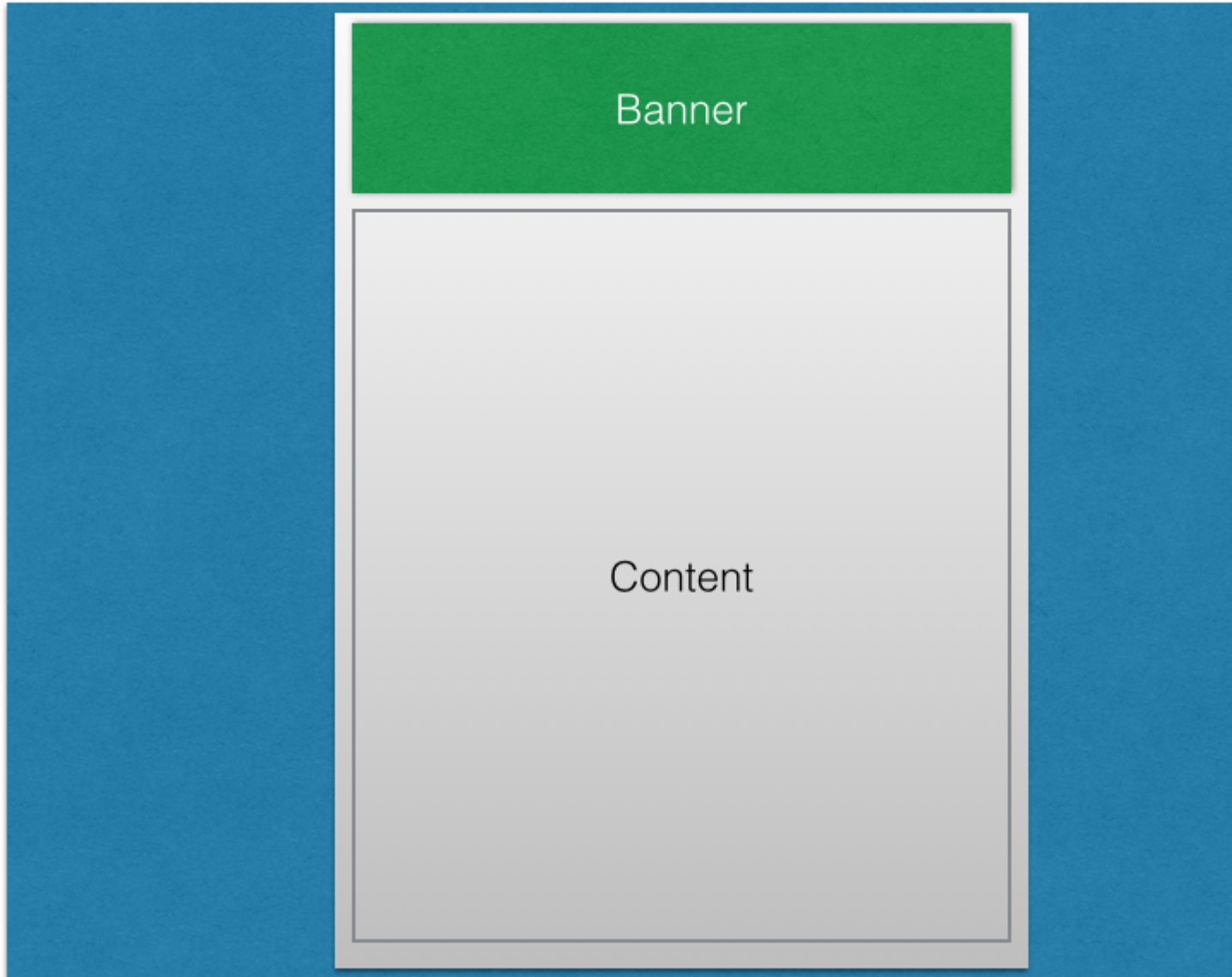
Optional. In the menu, the heavier links will sink and the lighter links will be positioned nearer the top.

Save the page. Your footer menu has now been created and has a link in it, but if you visit your home page you will find that it does not appear anywhere. That's because Drupal can't make assumptions about where to put things based on the fact that we called it "footer", we have to explicitly tell it where to put the menu. Time to learn about another aspect of Drupal - **blocks**!

2.6 Drupal Blocks

Time for some concepts...

A Drupal theme defines the structure of your pages, such as the page size, banner, column layouts etc. But, the theme has no responsibility for site functionality or content, which is why you can swap a theme on the site and the only thing that changes is the layout and appearance, not the functionality or content. Therefore the theme must also define **regions**, places on the page where content and functionality can do their stuff. At the most basic level, you might have a theme which defined a page with a banner and a single content region as in the following wireframe:



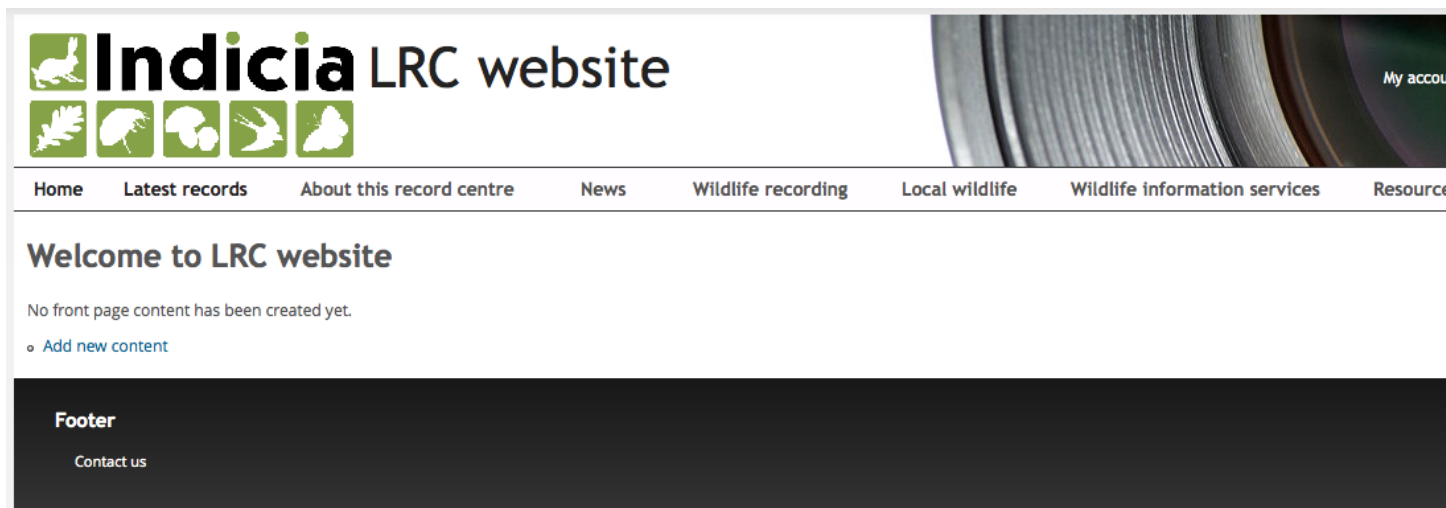
Of course, a real Drupal theme will be somewhat more complex, with multiple regions on the page such as left and right columns and footer areas and possible multiple layout options as our theme does. But the principle is the same.

So, what goes into a theme's regions? That's where blocks come in, they are quite literally the building blocks of the page which are laid out on the page by placing them into the theme's regions. In fact, the reason why when you look at any page on your site you see the page's content appear is because Drupal defines a core block called **Main page content** and by default, our theme places it in a region called **Main content**.

The purpose of all this was to add our footer menu to the page, so click the **Structure** link in the **admin toolbar** then select the **Blocks** link. This shows a page listing the regions available in your theme and the blocks active in each region. Scroll to the bottom where you will find the **Disabled blocks** section and within it, the **Footer** block:

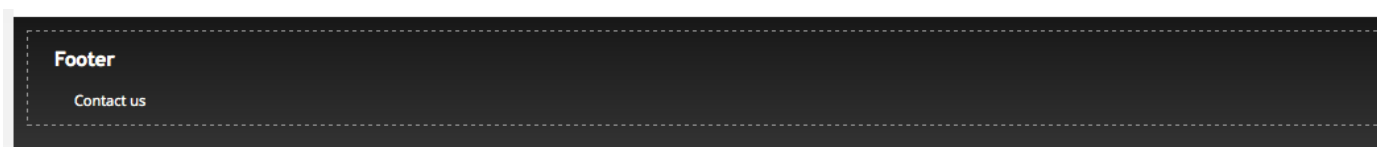
Disabled		
⊕ Features	<input type="text" value="- None -"/>	configure
⊕ Footer	<input type="text" value="- None -"/>	configure
⊕ LoginToboggan logged in block	<input type="text" value="- None -"/>	configure
⊕ Main menu	<input type="text" value="- None -"/>	configure
⊕ Management	<input type="text" value="- None -"/>	configure
⊕ Masquerade	<input type="text" value="- None -"/>	configure
⊕ Navigation	<input type="text" value="- None -"/>	configure
⊕ Powered by Drupal	<input type="text" value="- None -"/>	configure

In the **Region** column of the **Footer** block, choose **Footer** in the drop down then click the **Save blocks** button at the bottom of your page. Visit your site's home page to check that it has worked.



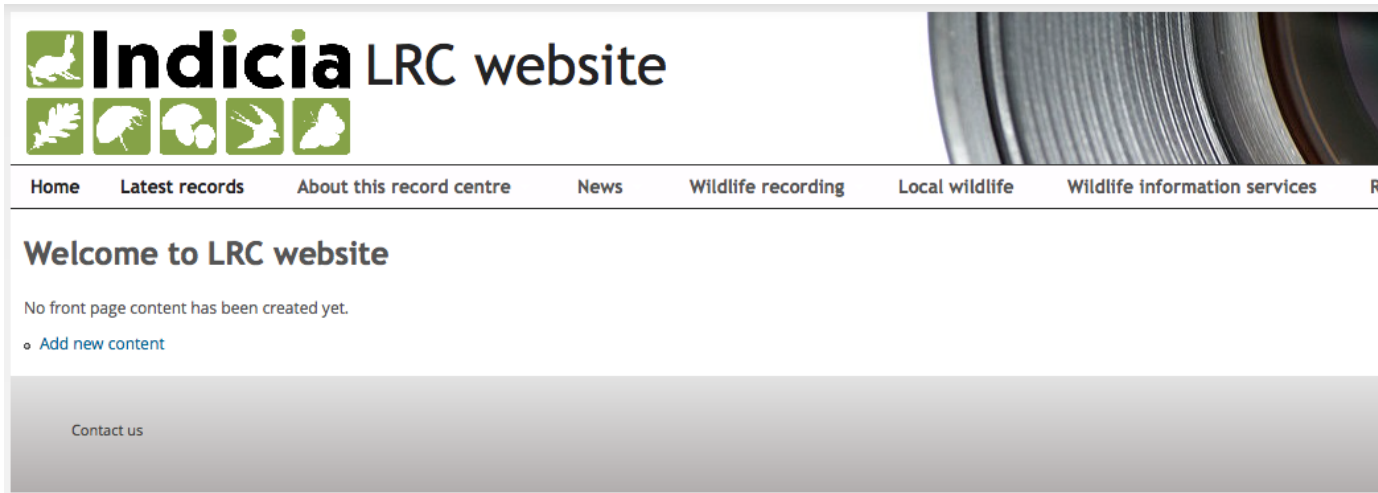
Well, it's worked, but in my opinion it doesn't look very nice. The footer area is a bit too dominant and the "Footer" block title is unnecessary. Follow these steps to tidy things up:

1. Hover the mouse near the right of the footer area and you will see a settings "cog" icon appear, indicating that there is a settings menu you can access for this part of the page.



1. Select the **Configure block** item in the menu. This is a shortcut to the configuration page for this block, which you could also have reached via the **Structure - Blocks** page.
2. In the **Block title** box, enter `<none>` (including the less than and greater than symbols) and click the **Save block** button.

- Now let's lighten up the footer colour a bit in keeping with the rest of the template. Select **Appearance** then click **Settings** for **Indicia default theme**. Scroll down to the **Colour scheme** section and change the **Footer top** and **Footer bottom** colours to 2 shades of light grey. Since the font won't show very well now, change the **Footer text** to a dark colour then click **Save configuration** and revisit the home page to check that it has worked OK. You could of course continue to enhance the footer area by adding other blocks, or using custom CSS to centre the menu etc.



Feel free to experiment! If you want to know more about Blocks, then there are some handy resources online, such as [Drupal Garden](#) and the [Drupal Community documentation](#).







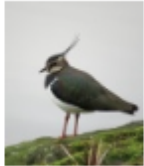







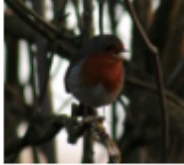





2.7 Drupal Views

Drupal's [Views module](#) is considered a “must have” module, one of those modules which you end up installing on nearly every Drupal site. In fact, this is so much the case that Views has now been integrated into core Drupal for the upcoming Drupal 8 release. So, what's all the fuss about?

Views is a Swiss Army Knife for building outputs which include a list of items. These lists of items might be:

- a list of content items such as news articles on your home page
- a page listing recent blog posts
- a list of users
- a gallery of photo content items
- a calendar of diary events
- a list of forum sections or forum posts

Think of Views as a custom report builder, though note that Views works against Drupal content not Indicia wildlife records - we have different methods for reporting on records.

			
Fox <i>Vulpes vulpes</i>	Fox <i>Vulpes vulpes</i> Two foxes, one in motion.	Meal Moth <i>Pyrallis farinalis</i>	Curlew <i>Numenius arquatus</i>
			
Bar-tailed Godwit <i>Limosa lapponica</i>	Lapwing <i>Vanellus vanellus</i>	Lapwing <i>Vanellus vanellus</i>	Rook <i>Corvus frugilegus</i> Rook-Woodgate Swamp
			
<i>Biselachista utionella</i> 1st for VC55 - confirmed by gen det	<i>Cochylidia rupicola</i> 1st record for VC55	Velvet Shank <i>Fiammulina velutipes</i>	<i>Bembidion biguttatum</i>
			
<i>Sylvicola fenestralis</i>	Robin <i>Erithacus rubecula</i> Robin-Woodgate Swamp	Robin <i>Erithacus rubecula</i> Robin-Woodgate Swamp	Black-headed Gull <i>Larus ridibundus</i>
			
Black-headed Gull <i>Larus ridibundus</i>	Black-headed Gull <i>Larus ridibundus</i>	Pochard <i>Aythya ferina</i>	Pochard <i>Aythya ferina</i>

1 2 next » last »

The Latest Images page from NatureSpot is a good example of a Drupal View.

Note: Since views are such a powerful aspect of Drupal, please take the time to read through the thorough documentation on [Drupal Garden](#) and ensure you run through the [views tutorials](#) on that site.

2.8 Drupal Panels

Another workhorse of the Drupal modules library is **Panels**. Like **Views** **Panels** is a module I tend to install on most Drupal sites. We have already seen how the layout of a page can be controlled via a combination of your theme and *Drupal Blocks*, but this approach works well when the blocks are mostly consistent across the site or section of the site. So, for example the blocks approach is good for setting up a site where the left column always contains a navigation menu, and the footer area always contains a consistent set of links. But what about the scenario where you want to layout the content area of the page and perhaps to do this differently on several pages? Your home page might need to contain an area with links to blog posts, an area with links to recent photos and perhaps an area with the block output created by a weather forecast module. Another page might need to show a user's notifications in one column and a second column containing their direct messages. Although it is possible to use the theming system to create different page templates for each page and to use the blocks system to populate the templates, this approach has 2 major problems:

- Writing page templates requires you to write PHP & HTML template files to upload to the server.
- Drupal's method of configuring blocks to be shown only on certain pages is designed to only cope with a small amount of variability between pages. Using this technique to make every page different would simply be a nightmare to manage.

This is where **Panels** steps in. When combined with the **Page Manager** module, you can take greater control over the user experience of your website, including:

- Create totally custom one-off pages with their own mashup of content
- Create page layouts that will be applied when the current page is a certain content type. For example, you could create a "Species Account" content type with its own set of fields and corresponding **Panels** layout.

Welcome back admin.

Recent sightings

The following list of records includes verified records and those awaiting verification of species groups you are interested in which have been recently added in your area.

Species	Site name	Grid Ref	Date	Recorder
Misumena vatia	Colchester, Chalfont Rd	TM013272	19/04/2011	Pearson, Peter
Buteo buteo Common Buzzard	woodgreen	J11929709	13/02/2014	CEDaR Recording-> belshaw, billy
Hyacinthoides non-scripta Bluebell	Colchester, Highwoods, Friars Grove.	TM01002689	18/04/2011	Pearson, Peter
Erithacus rubecula European Robin	Colchester, Highwoods, Friars Grove.	TM01002689	18/04/2011	Pearson, Peter
Phylloscopus collybita Common Chiffchaff	Colchester, Highwoods, Friars Grove.	TM01002689	18/04/2011	Pearson, Peter

Approx. 436701 records of 14220 species, with 66834 photos. [Explore records...](#)

Recently added photos



The iRecord home page is an example of a panel layout.

2.9 Tutorial - Drupal Panels

In this tutorial we'll learn to use the **Panels** and **Page manager** modules to configure a custom home page layout.

2.9.1 Before you start

Since we will be inserting the output of **Views** into our custom page layout, before following this tutorial please select **Modules** from the **admin toolbar** then search for the **Views content panes** module and tick the checkbox to enable it, then scroll to the bottom and click the **Save configuration** button.

Also make sure that you have at least the **Front page** view enabled via the **Structure - Views** page by clicking the **Enable** link to the right of the view in the list, so that we can add this view to our page.

Tip: The Views module comes with a set of example views which are disabled by default. One of these is the **Front page** view which replicates the functionality of the default home page of Drupal. It outputs all content where the **Promote to front page** option is checked (under the **Publishing options** section on the **Edit** tab each page).

1. Click **Structure** in the **admin toolbar** then select the **Pages** link.
2. Click the **Add custom page** button at the top of the list of pages.
3. Set the **Administrative title** to “home” and the **Administrative description** to “Home page layout”.
4. Set the **Path** to “home”.
5. Tick the **Make this your site home page** checkbox.

Administrative title

home Machine name: home [\[Edit\]](#)

The name of this page. This will appear in the administrative interface to easily identify it.

Administrative description

Home page layout

A description of what this page is, does or is for, for administrative use.

Path

http://localhost/lrc/?q= home

The URL path to get to this page. You may create named placeholders for variable parts of the path by using %name for required elements and !name for optional elements. For example: "/node/%node/dashboar!/input". These named placeholders can be turned into contexts on the arguments form.

☒ **Make this your site home page.**

To set this panel as your home page you must create a unique path name with no % placeholders in the path. The site home page is currently set to /node on the [Site Information](#) configuration form.

☐ **Use this page in an admin overlay.**

Admin overlays are used in many places in Drupal 7 and administrative custom pages should probably utilize this feature.

Variant type

Panel

Optional features

☐ Access control

☐ Visible menu item

☐ Selection rules

☐ Contexts

Check any optional features you need to be presented with forms for configuring them. If you do not check them here you will still be able to utilize these features once the new page is created. If you uncheck.

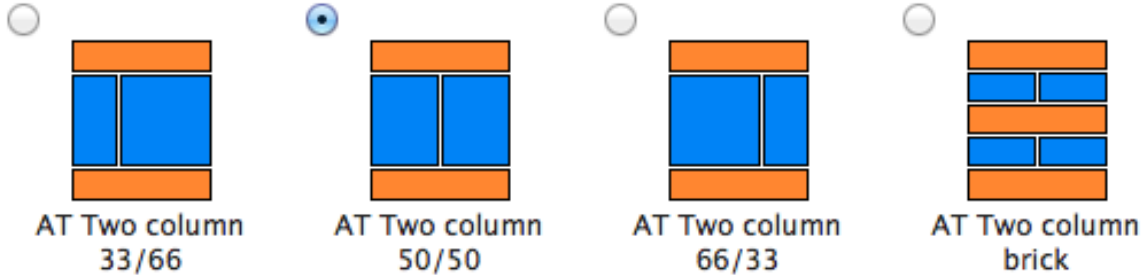
6. All the other options on this page can be left at their default setting so click the **Continue** button when you are ready.
7. On the next page, you need to specify the basic page layout you want. There are several categories of layout available and within each category there may be several layouts. Since we want to use a 2 column layout, choose the **AT Responsive Panels - 2 column** category and the **AT Two Column 50/50** layout.

Basic settings » **Choose layout** » Panel settings » Panel content

Category

AT Responsive Panels – 2 column

AT Responsive Panels – 2 column



Back

Continue

Tip: The **AT Responsive Panels** categories are all provided as part of the base Drupal theme we are using, called **Adaptive Theme**. They provide layouts which respond well to different devices such as mobile phones and tablets.

8. Click the **Continue** button to go to the next step. On the next **Panel settings** page, click **Continue** again as we don't want to change any settings on this page.
9. The next page is the content editor for our page. It shows a wireframe of the panels layout we have chosen and allows you to insert any content you like into each region.

Basic settings » Choose layout » Panel settings » **Panel content**

▼ Display settings

Title type

Manually set

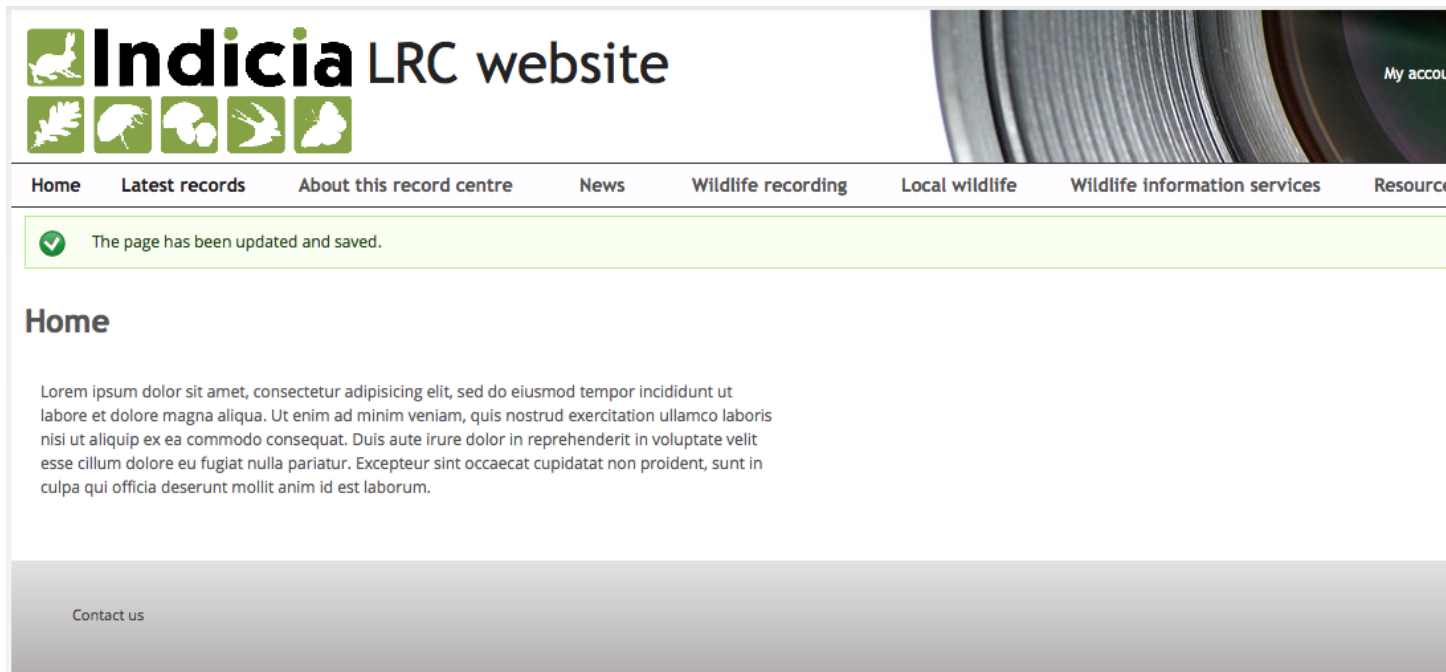
Title

The title of this panel. If left blank, a default title may be used. Set to No Title if you want the title to actually be blank.

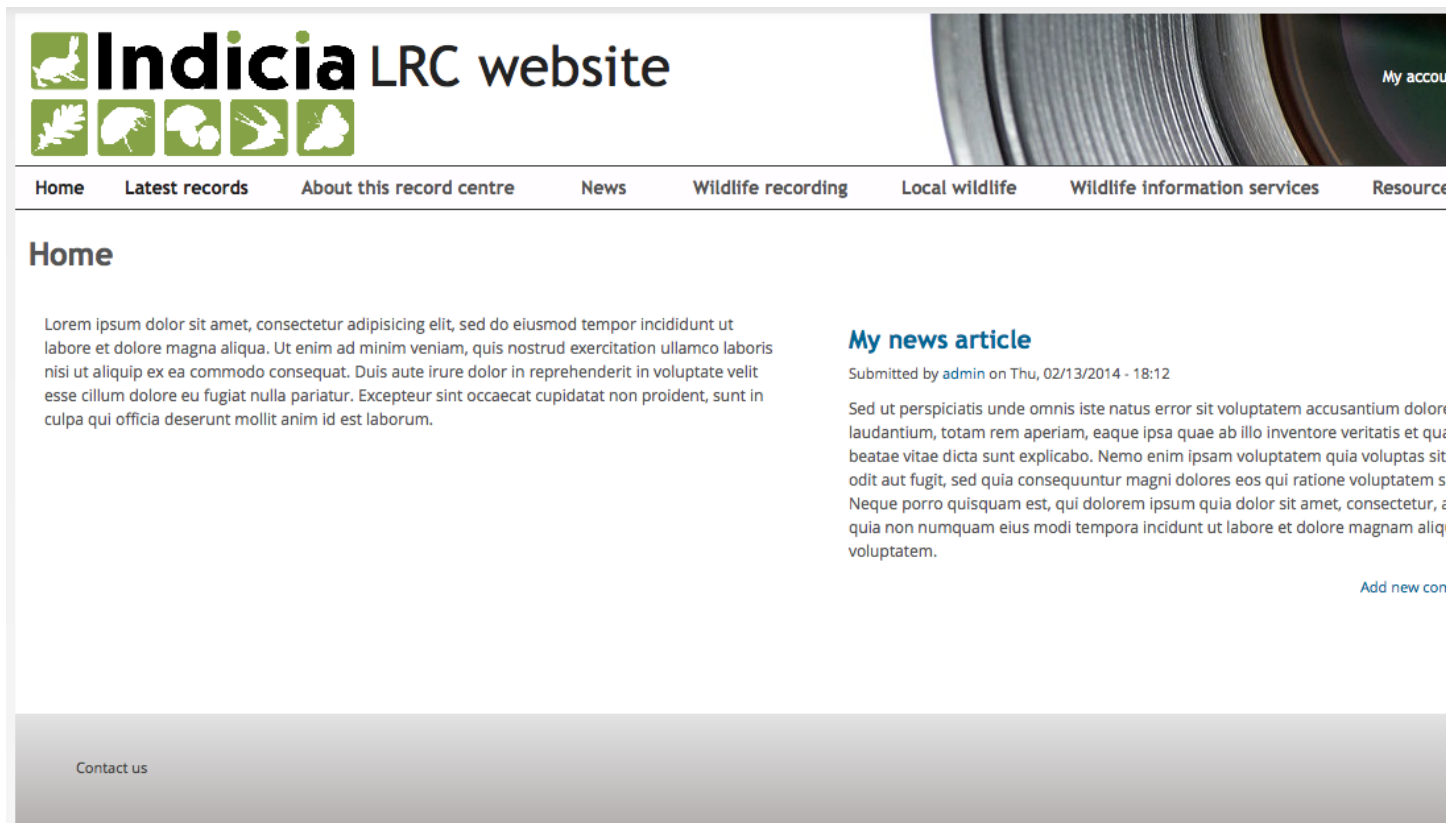
Top (conditional)		
Left		Right
Bottom (conditional)		

Back **Finish**

10. In the region called **Left**, click the cog icon on the left and select **Add content** from the popup menu.
11. A dialog will appear allowing you to first choose, then configure, the type of content to add the page. Select



Notice that our **Front page** view is not outputting any content at the moment. This is because the view is configured to only output content that has been **promoted to front page** and we have none. To get around this, click the **add content** link near the top left of the page, then choose **Article** which by default will be promoted to the front page. Set a suitable title and body text for your article then save the content and return to the home page to check that it appears.



This has just been a quick introduction to panels. Panels can output all types of content including:

- The output of other existing content pages.
- Lists of content generated by views.
- Custom text content.
- Custom PHP scripts, including code which interacts with the Indicia API.
- The output of modules which declare blocks, e.g. [Weather](#) or [Twitter Block](#).

As usual with anything Drupal, there is *lots* of further reading available on the internet. Try the [drupalize.me](#) article if you want to take this further. There is also a [tutorial showing how iRecord's home page was built in Drupal 6](#).

2.10 Drupal Users and Permissions

2.10.1 Principles

We are using the Drupal login and permissions mechanisms to control access to all the features provided including the Indicia online recording pages.

Drupal permissions are controlled by role membership, so site users belong to **roles** and roles define the **permissions** they have. Roles might include things like “administrator” and “data manager”, a bit like a job title. One person can have multiple roles so you could be a “data manager” and a “photo moderator” for example. Visitors to your site can either be logged out or logged in. Each permissions defines one or several tasks that can be performed, for example there are permissions such as “Perform a backup”. When Drupal decides whether to show you the perform backup functionality, it checks if one of your roles has permission to do this and the appropriate links, menu items or buttons are only shown if so. This behaviour runs throughout Drupal; there are permissions for everything from administering users through to the ability to view content.

Logged out, anonymous users automatically belong to a **fixed role** called **anonymous user** and logged in users belong to a **fixed role** called **authenticated user**. These roles cannot be changed, but you can configure the permissions that are available for these roles so for example, you might configure Drupal so anonymous users cannot even see any content - you have to log in before doing anything. You could even configure Drupal so that anonymous users can administer the site, obviously not a good idea but perfectly possible.

2.10.2 Configuring permissions

You can add roles to the Drupal site yourself. Obviously you must have sufficient permissions to do this, such as when logged in with the site's admin account. An example might be to setup a **site editor** role for people who have access to edit site content without having full admin permissions. We'll work through how to set this up to illustrate all the concepts you need to understand relating to Drupal permissions.

1. Select **People** from the **admin toolbar**, then click the **Permissions** tab in the top right of the page. Click on the **roles** link near the top left of the page to access the list of roles.
2. Type “site editor” into the **Add role** box at the bottom of the list, then click the button to add the role.
3. Click the **edit permissions** link to the right of the role you just added. You will now be looking at a page allowing you to tick each of the permissions you want to allow for the role, organised in a list of permissions by module. Tick the following permissions for our site editor role under the **Node** module:
 - *Article*: Create new content
 - *Article*: Edit own content
 - *Article*: Edit any content
 - *Article*: Delete own content

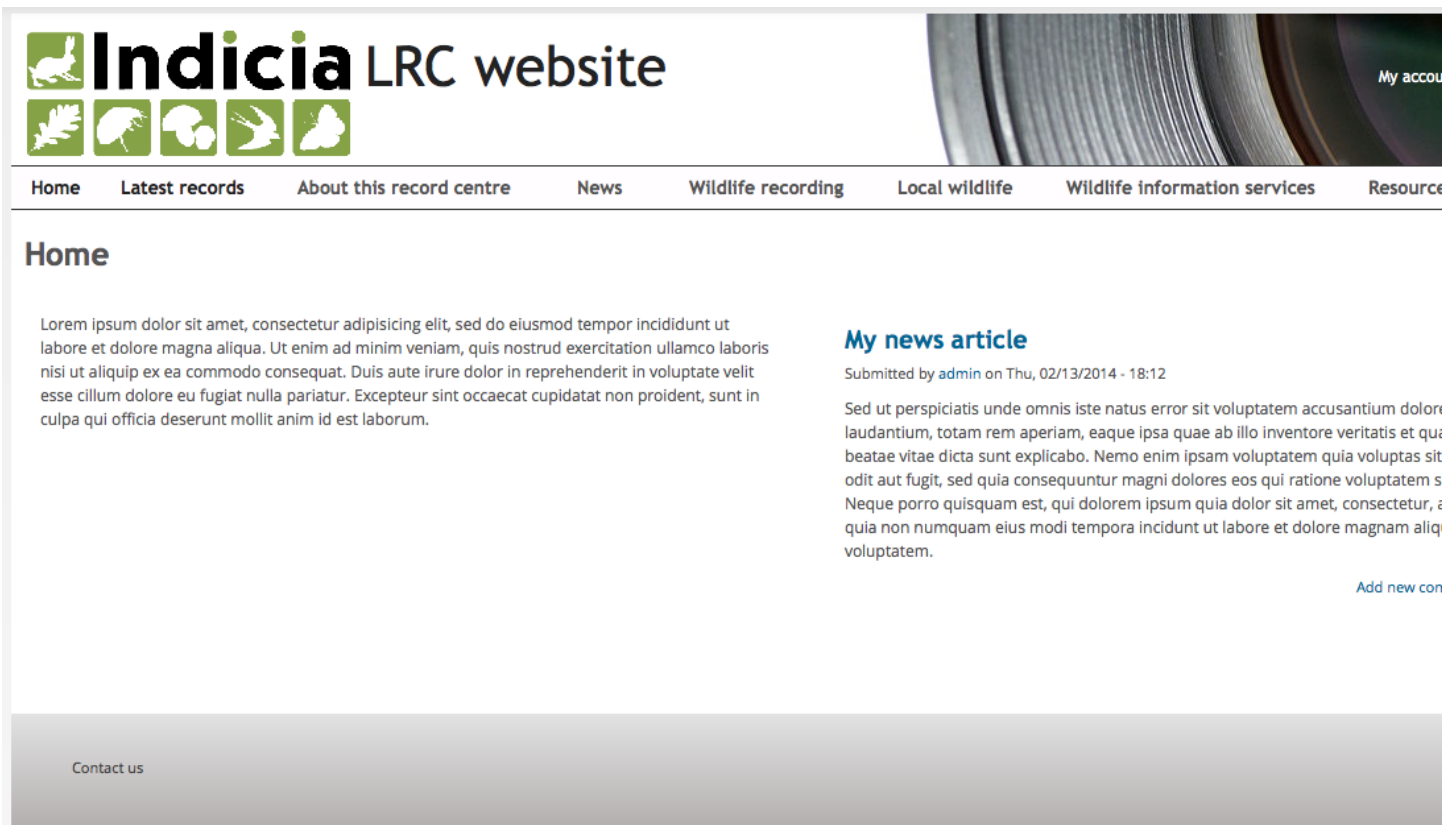


Fig. 2.1: The list of roles

- *Article*: Delete any content
- *Basic page*: Create new content
- *Basic page*: Edit own content
- *Basic page*: Edit any content
- *Basic page*: Delete own content
- *Basic page*: Delete any content

4. Scroll to the bottom then click the **Save permissions** button.

Tip: If you wanted the **site editor** role to also be able to configure the online recording pages, reports and maps you would also tick the permissions starting with *Indicia pages* in the page title.

Adding a user to a role is simply a matter of editing their user account (as long as you have the correct permissions to do this of course). Select **People** from the **admin toolbar** then find the appropriate user and click the edit link. This includes various settings for the user account; the one we want to focus on at the moment is the list of roles that the user belongs to. Note that the user can of course belong to several roles – they could be a site editor and a record verifier at the same time for example.

Note: A challenge for you. See if you can add a new user to the list of users then configure them as a site editor, log out and log in as the new user to test the functionality.

When configuring permissions, you can view or edit all the roles and permissions in one big grid by selecting **People** from the **admin toolbar** then clicking on the **Permissions** tab in the top right.

People + LIST PER

Home » Administration » People

[Permissions](#) [Roles](#)

[Hide descriptions](#)

Permission	anonymous user	authenticated user	administrator	regional collator
BOTCHA				
Administer BOTCHA settings	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Skip BOTCHA Users with this permission will not be subjected to BOTCHA.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Backup and Migrate				
Access Backup and Migrate Access the Backup and Migrate admin section.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Perform a backup Back up any of the available databases.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Access backup files Access and download the previously created backup files.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Delete backup files Delete the previously created backup files.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

2.10.3 Indicia permissions specifics

The Drupal LRC Website template is provided with a number of pages powered by the Indicia toolkit, under the **Wildlife recording** item on the main menu. Indicia allows you to easily control permissions on a page by page basis. By default, the **Submit a sighting** page is accessible to members of the public, whereas all the other online recording and reporting pages are only available to logged in users. There is an **All records** page which allows users to browse through each other's records. To illustrate how to control permissions on a per-Indicia page basis, let's make this page only available to our **site editor** group. Ensure that you are logged in as admin first.

1. Access the **Wildlife recording** menu's **All records** page.
2. Click the **Edit** link to access the page's configuration.
3. Scroll down to the **Other IForm Parameters** section and tick the **View access control** box. This means you want to control the permissions for this page separately to the default settings for Indicia forms.
4. In the **Permission name for view access control** box, enter "view all records". This will create a new permission that we must then link to the appropriate role(s).

Other IForm Parameters

View access control: ☒ If ticked, then a Drupal permission is created for this form to allow you to specify which roles are able to view the form.

Permission name for view access control: If you want to use a default permission name when using view access control, leave this blank. Otherwise, specify the name of a permission to define use of this is to create a single permission which is shared between several forms (e.g. a permission could be called "Online Recording". Another situation used is when creating a feature for Instant Indicia so the permission name can be consistent across sites which share this form.

Survey: The survey that data will be posted into and that defines custom attributes.

5. Scroll to the bottom of the configuration form and save it.
6. Since you are logged in as admin, you can see the form still even though you haven't linked one of your roles to the new "view all records" permission. This is because the admin account on a Drupal site is a special account which implicitly has all permissions.
7. Now, go to **People** in the **admin toolbar** then select the **Permissions** tab in the top right of the page.
8. Search on this page for the **Indicia form module's** "view all records" permission.

Indicia forms			
Access Indicia Iform web pages	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Create IForm web pages	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Edit any IForm web pages	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Edit own IForm web pages	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
IForm groups admin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
online recording	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
view all records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. Now, scroll to the bottom of the page and save the permissions.

At this point, you may well want to test the permissions out. You'll need to create a couple of user accounts to do this, or if you already have existing users on your website a really handy tool for testing the results of a permissions change

from their point of view is [Masquerade](#). Since this module has already been installed on your site for you, you simply need to access someone's user account when logged in as admin and you will find a link there to masquerade as that user, so you can use the Drupal site from within their login to check it works as expected. Having rights to masquerade is obviously something you'd only want administrators to do!

2.10.4 Controlling the user registration process

A final note whilst we are on the topic of user management. Although the LRC Drupal Template website comes pre-installed with a module called [BOTCHA Spam Prevention](#), you might still find the occasional spambot user will manage to register on the site. Although spambots rarely manage to submit a valid biological record you might find this is a hassle if you have, for example, added a forum to your website. Therefore you need to think about whether to allow users to register themselves on your website.

If you click on **Configuration** in the **admin toolbar**, then click on the **Account settings** link in the **People** section, you get to a page allowing various configurations relating to the user account to be set. Under the **Registration and cancellation** section, you can change the account registration so that:

- an administrator must manually register all users (good for websites with a small group of known users, since spambots cannot register)
- visitors can register
- visitors can register by email verification is required
- visitors can register but admin approval is required.

Registration and cancellation

Who can register accounts?

- ☐ Administrators only
- ☒ Visitors
- ☐ Visitors, but administrator approval is required

☒ Require e-mail verification when a visitor creates an account.

This setting has been locked by the LoginToboggan module. You can change this setting by modifying the **Set password** checkbox at [LoginToboggan settings page](#).

Have a think about which is most appropriate for the usage of your site.

Configuring online recording

The **LRC Drupal Template** website is provided with 2 wildlife recording forms under the **Wildlife recording** menu, one optimised for single record submissions and one for multi-record submissions. You can add new recording forms to your website as and when required. The following tutorials show you how to do this and in the process you'll pick up many of the basic skills you'll require to get confident with configuring Indicia recording.

In this example, we'll add a simple "Spot the amphibian" citizen science survey. You will need a login for the Indicia warehouse which should have been provided to you.

3.1 Setting up a new survey on the warehouse

Firstly, note that in Indicia's terminology a survey is a dataset owned by one online recording website which has been set up with a specific structure, a bit like setting up the columns in a spreadsheet. As well as being used to categorise records, an important use of surveys in Indicia is to allow you to customise the information you will capture for a record at a survey level. For example, you might run a survey of hedgehogs in your area as well as a survey of garden birds. The garden bird survey could allow the user to tick a box for nesting birds as opposed to non-breeding visitors to the garden. Obviously it would not make sense to provide this checkbox on a form for inputting hedgehog records! Don't worry about dividing your data up into several surveys if you need to in order to get the right attributes for each survey, as it is simple to join the data back together again when producing reports and maps later. Whilst we are on the topic of terminology, we will be using the following:

- **record** or **occurrence** describes a unique observation of a species on a specified date, at a specified place, by a specified person(s).
- **sample** describes the observation event that leads to the taking of zero or more occurrences, e.g. the use of a trap on a particular date by a particular person(s) at a particular place.
- **location** describes any named place which you are keeping details of in the system. A location may be a site that you visit for recording purposes, but could also be something like a town or other place name.

Follow these steps to register a new survey for recording on the warehouse.

1. Login to the warehouse using your warehouse login.

2. Select **Lookup lists > Surveys** from the warehouse's menu. You should now be on a page that shows a grid of surveys that already exist. Note that because your login only has access to configure surveys and other information for your own website, you will only see the survey that is already linked to your website.
3. Click the **New survey** button. This takes you to the **New Survey** page.
4. Set the title for your survey to "Spot the amphibian" and optionally fill in the description.
5. Select your website in the **Website** drop down, to associate the survey with your own website registration.

Indicia

Home Lookup Lists Custom Attributes Entered Data Admin Logged in as admin

Home >> Surveys >> Survey

New Survey

General Cleanup Records Import & Export

This page allows you to specify the details of a survey in which samples and records can be organised.

Survey details

Title: Spot the amphibian

Description: A citizen science amphibian survey

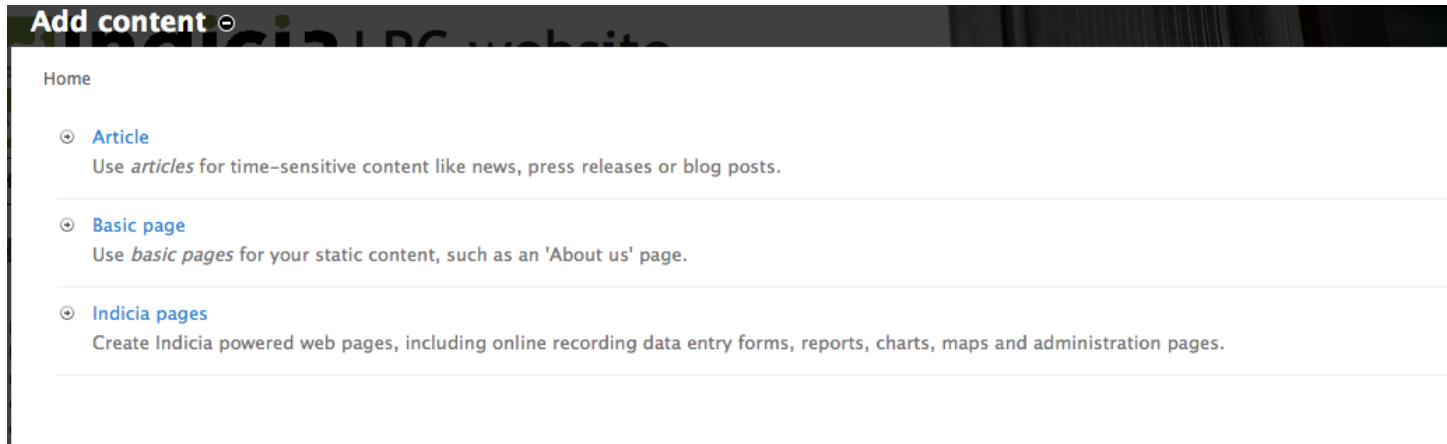
Website: LRC demo

Save Cancel then go back to the list

6. Click the **Save** button.

3.2 Setting up our recording form on Drupal

Now that the survey dataset is ready to accept records on the warehouse, let's add a recording form to our website. Back in your Drupal site, select the **Add content** link which should be in the **shortcuts area** near the top left of the page. Select to add an **Indicia page**.



You will now be presented with the edit page allowing you to add new content to Drupal. It has exactly the same options as you’ve seen early for other Drupal content types such as **Basic page** - a title, body, publishing options, comment options etc. But, there is a little more to it which we will find out shortly. Set the title for your page to “Spot the amphibian”. Near the bottom of the page, click on the **Publishing options** section and check the **Promoted to front page** and **Sticky at the top of lists** since we want this form to be promoted via the front page rather than hidden in the menus. Also click on **URL path settings** and set the **URL alias** to “spot-the-amphibian” so that the URL is nice and memorable.

Menu settings Not in menu	URL alias <input type="text" value="spot-the-amphibian"/> <small>Optionally specify an alternative URL by which this content can be accessed. For example, type "about" when writing an about page relative path and don't add a trailing slash or the URL alias won't work.</small>
Revision information No revision	
URL path settings Alias: spot-the-amphibian	
Comment settings Closed	
Authoring information By admin	
Publishing options Published, Promoted to front page, Sticky at top of lists	

So far everything we’ve done on this page has been standard Drupal configuration but we are about to dive into setting up the Indicia aspects of the form. In the **Form selection** box you can pick from a large library of ready made Indicia powered pages called **prebuilt forms**. Each form has a set of configuration parameters which allow them to be set up to your exact needs, so one form might be usable in many different situations. Prebuilt forms are organised into categories. Select “General Purpose Data Entry Forms” in the **Select Form Category** control. In the **Select Form** control, choose “Sample with occurrences form”. This is a really flexible Indicia powered page which can be configured to support a wide range of survey datasets and is the best choice generally as a starting point for building your survey forms.

Form Selection

Select Form Category: General Purpose Data Entry Forms
Select the form category pick a form from.

Select Form: Sample with occurrences form
Select the Indicia form you want to use.

A sample and occurrence entry form with an optional grid listing the user's samples so forms can be reloaded for editing. Can be used for entry of occurrence, ticking species off a checklist, or entering species into a grid. The attributes on the form are dynamically generated from the survey in the Indicia Warehouse.

[Find out more...](#)

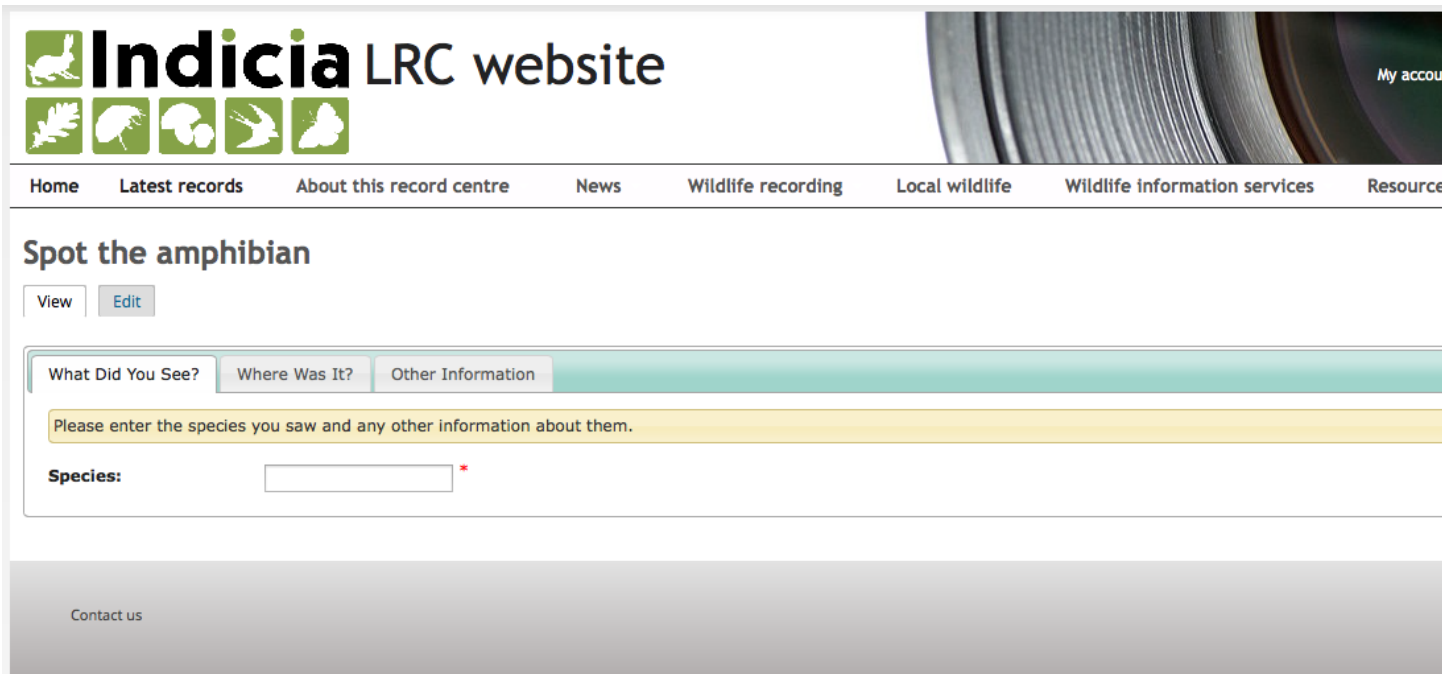
Load Settings Form

Now, click the **Load Settings Form** button. This requests the configuration parameters from the server and in a moment or two, injects the configuration form into the Drupal edit page.

Now, before you panic, there are a *huge* number of configuration settings for this particular prebuilt form, but many can be left in their default state so the actual number you need to understand is quite low. Also, each individual parameter is often quite simple when viewed in isolation and is accompanied by help text which explains how it works. Here are a list of the relevant settings you need to configure for our survey:

- **Other IForm Parameters - View access control** can be left unticked in this case to allow the form to be used by the public.
- **Other IForm Parameters - Survey** should be set to **Spot the amphibian**.
- **Base Map Layers - Preset Base Layers** - tick “Google Streets” and “Google Satellite”.
- **Species - Allow a single ad-hoc record or a list of records** should be set to “Only allow entry of one occurrence at a time”.
- **Species - Species List** should be set to **UK Master List** which is the complete of species names provided by UKSI. You may need to pick a different species list to record against if you are on a development server with a different setup.
- **Species - Cache lookups** should be ticked as this allows for better performance when looking up species names, as well as tolerance of things like differences in hyphenation or spacing.
- **Species - Occurrence Images** should be ticked to allow photo upload.
- **Species - Field used to filter taxa** can be set to “Taxon group title”. This allows us to filter the species returned from the entire dictionary by taxon group (i.e. the NBN taxon reporting category).
- **Species - Taxon filter items** should be set to “amphibian”.

Now scroll to the bottom and click the **Save page** button. You should have a slightly untidy but working form:



The screenshot shows the Indicia LRC website interface. At the top, there is a header with the Indicia logo (a green square with a white animal silhouette) and the text "Indicia LRC website". Below the logo are five small green squares, each containing a white silhouette of a different animal. To the right of the header is a large image of a vinyl record. Below the header is a navigation menu with links: Home, Latest records, About this record centre, News, Wildlife recording, Local wildlife, Wildlife information services, and Resource. The main content area is titled "Spot the amphibian" and contains a "View" button and an "Edit" button. Below these buttons is a form with three tabs: "What Did You See?", "Where Was It?", and "Other Information". The "What Did You See?" tab is active, showing a yellow box with the text "Please enter the species you saw and any other information about them." Below this is a "Species:" label and a text input field with a red asterisk to its right. At the bottom of the form is a "Contact us" link.

Although it should be functional, having three different tabs to navigate through for such a simple form is somewhat overkill. To fix this, click the **Edit** button then scroll down to find the **User Interface** section. Change the **Interface Style Option** from “Tabs” to “All One Page” then save the form again. This time we have rationalised the form onto a single page, but the form is still rather untidy and the map is very dominant:

Spot the amphibian


Please enter the species you saw and any other information about them.

Species: *

Please provide the spatial reference of the record. You can enter the reference directly, or search for a place then click on the map to set it.

Spatial Ref: *

Search for Place on Map:



Please provide the following additional information.

Date: *

Click the **Edit** button again and find the **Initial Map View** section. Change the **Map Height (px)** control to “450”. Before you save the page, scroll down to the **User Interface** section and find the **Form Structure** control.

Tip: The **Form Structure** configuration allows you to control exactly what controls are output onto the page and to take fine control over the configuration parameters passed to each control. Its well worth taking the time at some point to follow the [Advanced Configuration using the Form Structure](#) tutorial from the [Indicia documentation website](#).

Copy and paste the following configuration settings into the **Form Structure**, replacing the existing content, to reformat the layout of the form:

```
=Misc=
[date]
@class=control-width-4
@helpText=Select the date of the record.
```

```

@lockable=true
[species]
@lockable=true
@class=control-width-4
@helpText=Enter the species name using * as a wildcard
@resizeWidth=1500
@resizeHeight=1500
[species attributes]
[location name]
@helpText=Enter the name of the site
[spatial reference]
@label=OSGB Grid Reference
@helpText=Enter a grid reference or click on the map to set the location of the
↪record.
[sample comment]
@label=Comment
@helpText=Please provide any other information about the record which you think will
↪be useful.
[*]
|
[place search]
[map]
==*==

```

Spot the amphibian

[View](#) [Edit](#)

Date:

[Click here](#)  *

Select the date of the record.

Species:

 *

Enter the species name using * as a wildcard

Site Name:



Enter the name of the site

OSGB Grid Reference:

 *

Enter a grid reference or click on the map to set the location of the record.

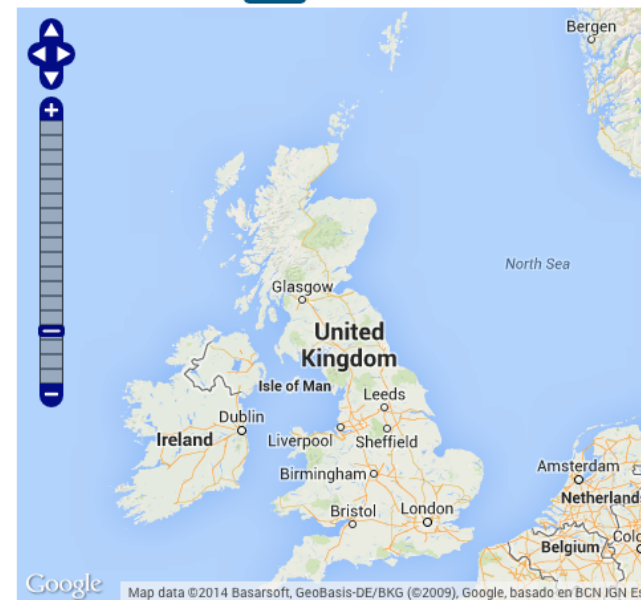
Comment:

Please provide any other information about the record which you think will be useful.

[Submit](#)

Search for Place on Map:

[Search](#)



That's better!

CHAPTER 4

Further Reading

This has been a very quick introduction Drupal and to building your own Indicia powered recording form. If you want to know more, then the links below are a great place to start. Note that a lot of the tutorials on the Indicia documentation website are designed for Drupal 6 but the Indicia configuration process is exactly the same.

- [Indicia documentation website](#)
- [Adding a custom attribute](#)
- [Setting up a custom species list for recording](#)
- [Customising Indicia pages by adding your own JavaScript, CSS and language translations](#)
- [Learn how iRecord was built](#)
- [Get involved in developing Indicia](#)
- [Indicia.org](#)
- [Indicia forum](#)
- [The Drupal.org website](#)
- [Drupal Gardens documentation](#)