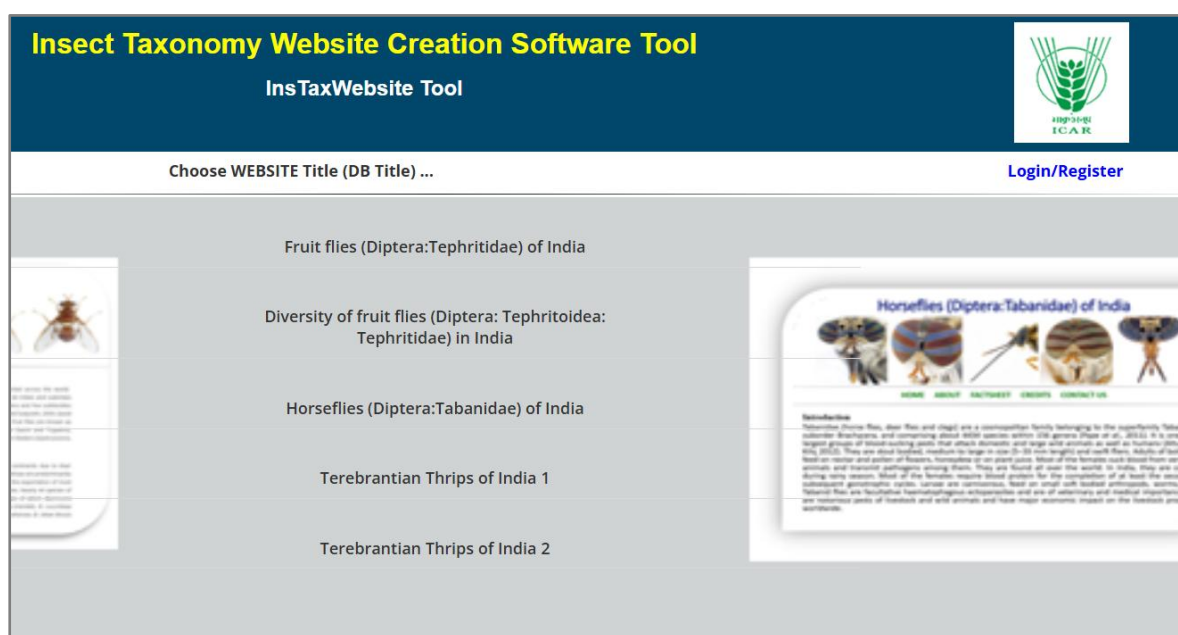# Manual to use the software 'InsTaxWesite' tool, to create the website on insect taxonomy aspect

## 1. Login / Registration and creation of website title

The website address to use this tool is at https://taxonomywebsitetool.nbair.res.in

Figure 1. Home page of the 'InsTaxWebsite Tool' at https://taxonomywebsitetool.nbair.res.in

Registration is required to create the website on Insect taxonomy aspect. After logged in, the user has to create the 'DB Title'. The 'DB Title' refers the name of the Website. Creation of DB Title is mandatory for creation of website and the key menu options under this DB Title. The first page after logged in is shown in Figure 2. The user can enter into 'Navigation' by selecting the DB Title for adding the details. The features of Navigation Page with different menu options, is given in Figure 3.
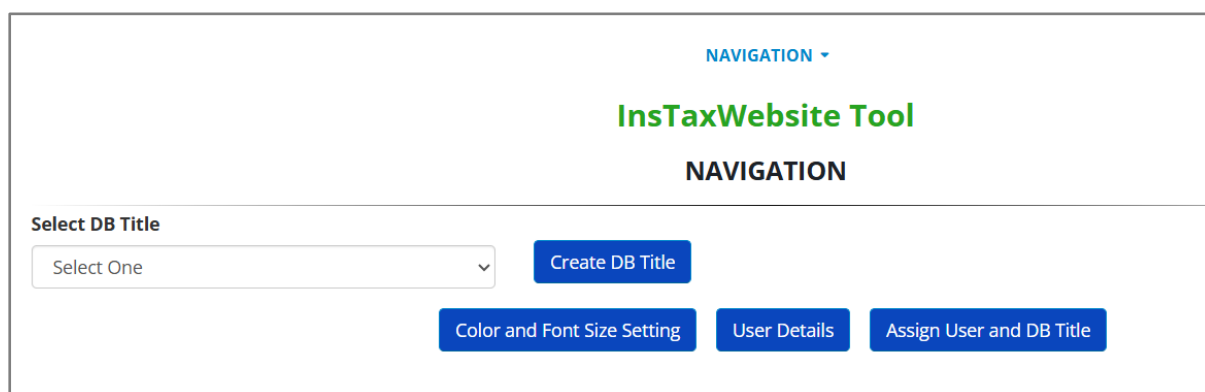
Figure 2. First page of InsTaxWebsite Tool after logged in and to create/select 'DB Title'

Figure 3. Options for website title, Footer information with images upload for header and footer

2. Navigation

The Navigation option is important to manage the website like to create the various menu items and to select the design pattern, option to show the menu item visible in the website. Hence, the Navigation page shows the options, 'Menu Item', 'No. of Design', 'Visible', 'Current Design' and 'Action', which are clearly mentioned to develop the website. The Website link will be generated automatically and displayed in the Navigation page. The various menu items and its options are given in Fig. 4.'Entry Form' is given to each menu item to create the web pages for each of the menu item. 'Log out', option is given under 'Navigation' menu item.

Figure 4. Navigation Page to create and manage the various menu items for the website

Through the 'Entry Form', the user has to enter the details of the web page. The common features for the entry form of each menu options are Edit/Delete option given to edit or delete the content under each category. Upload Image options given in Home, About, Factsheet, Morphology categories to add pictures in the web pages as per the requirement. Add Link option given in Genera/SubGenera, Factsheet, Morphology, Checklist categories to navigate to another page or within the page or external link of these categories. Double clicking of the menu item shows the web view of the corresponding menu item.

3. Home and About Pages

The Home and About pages are almost same and to convey the introduction about the website. The Entry Form of Home page is given in Figure 5, Figure 6 and Figure 7.

The Add Content option gives provision to add the Main Heading and Sub Headings and Description as text. Add Images option is to add images/pictures of file types *.jpg or *.png file formats and the maximum file size is around 5MB. Home page contains 3 design patterns and shown the design patterns in Figure 8, 9,10. The entry form and view of About Page after adding the content and images are given in Figure 11 and 12.

Figure 5. Entry form of Home Menu Item

Figure 6. Entry form of Home Menu Item

Figure 7. Add Images option in Home Menu Item

Fruit flies (Diptera:Tephritidae) of India

HOME ▾   MORPHOLOGY ▾   FACTSHEET ▾   NAVIGATION ▾

Fruit flies (Tephritidae)

Tephritidae represent one of the largest families of dipterans with about 4500 species reported across the world. Approximately 4500 species has been reported from the world in six subfamilies, 500 genera, 40 tribes and subtribes (Norrbom et al., 1999 and Freidberg, 2006). In India, about 260 species are recorded in 84 genera and five subfamilies namely Dacinae, Phytalmiinae, Tachiniscinae, Tephritinae and Trypetinae (Kapoor, 1993, Agarwal and Sueyoshi, 2005; David and Ramani, 2011; David et al., 2013; David and Hancock 2013 and David et al., 2014). Though fruit flies are known as frugivorous flies they show extreme diversity in their habits, they can be frugivorous (Tribe Dacini and Trypetini), saprophytic (Phytalmiinae), leafminers (*Stemonocera* Rondani and *Vidalia* Robineau-Desvoidy), stem feeders (Gastrozonini), parasitic (Tribe Tachiniscini), gall makers (Cecidocharini), flower feeders (Tephritinae) etc.

Economic Importance

Fruit flies (Diptera: Tephritidae) rank top among the pests of quarantine concern across the continents due to their concealed feeding and invasive potential. Fruit flies belonging to the subfamilies Dacinae and Trypetinae are predominantly frugivorous and form the lion's share of the economically important species. In many countries, the exportation of most commercial fruits is severely restricted by quarantine laws to prevent the spread of fruit fly species. Nearly 40 species of Tephritidae have been spread intentionally or accidentally by man beyond their natural ranges of which *Bactrocera dorsalis* (Hendel), *B. carambolae* Drew and Hancock, *B. papayae* Drew and Hancock, *B. latifrons* (Hendel), *B. cucurbitae* (Coquillett) and *B. zonata* (Saunders) have been introduced to other parts from Oriental region, whereas *B. oleae* (Rossi) got introduced to India from the Mediterranean region (Norbomm et al, 1999).

Figure 8. Home Page with Design 1 pattern

Fruit flies (Diptera:Tephritidae) of India

HOME ▾   MORPHOLOGY ▾   FACTSHEET ▾   NAVIGATION ▾

Fruit flies (Tephritidae)

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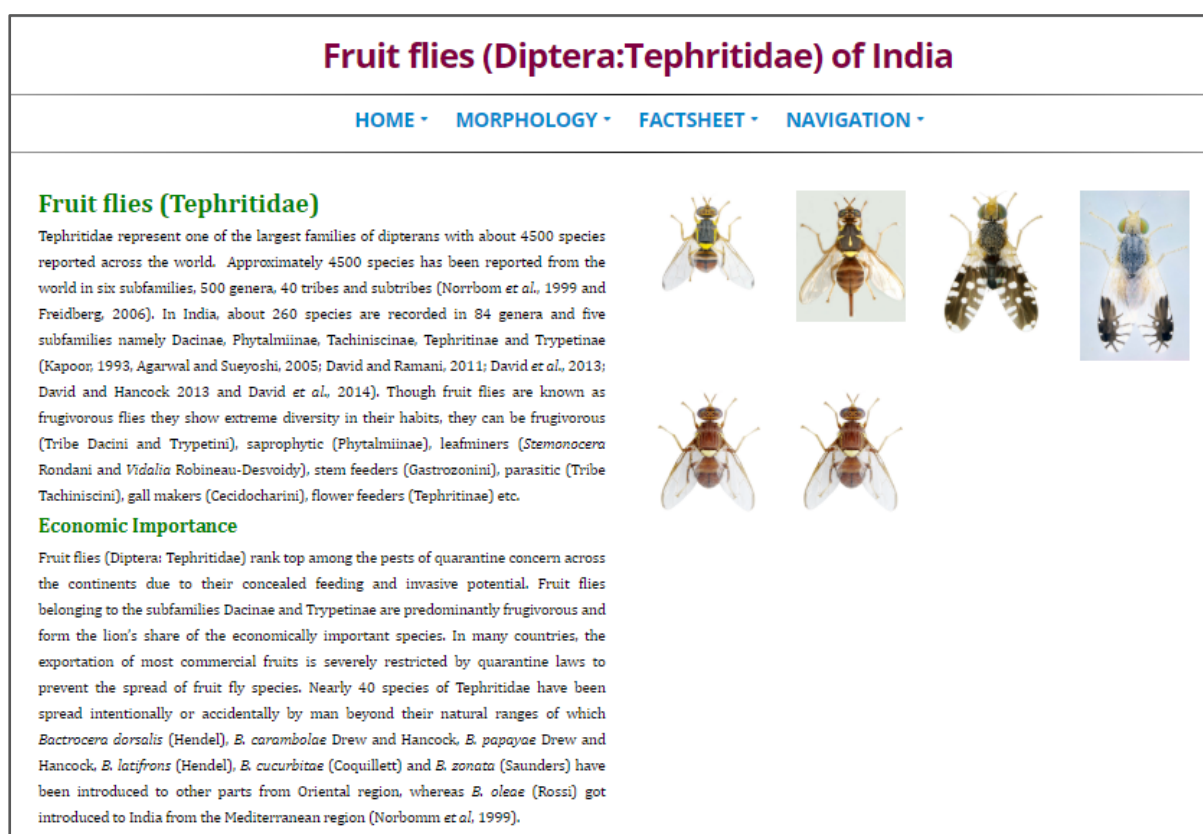
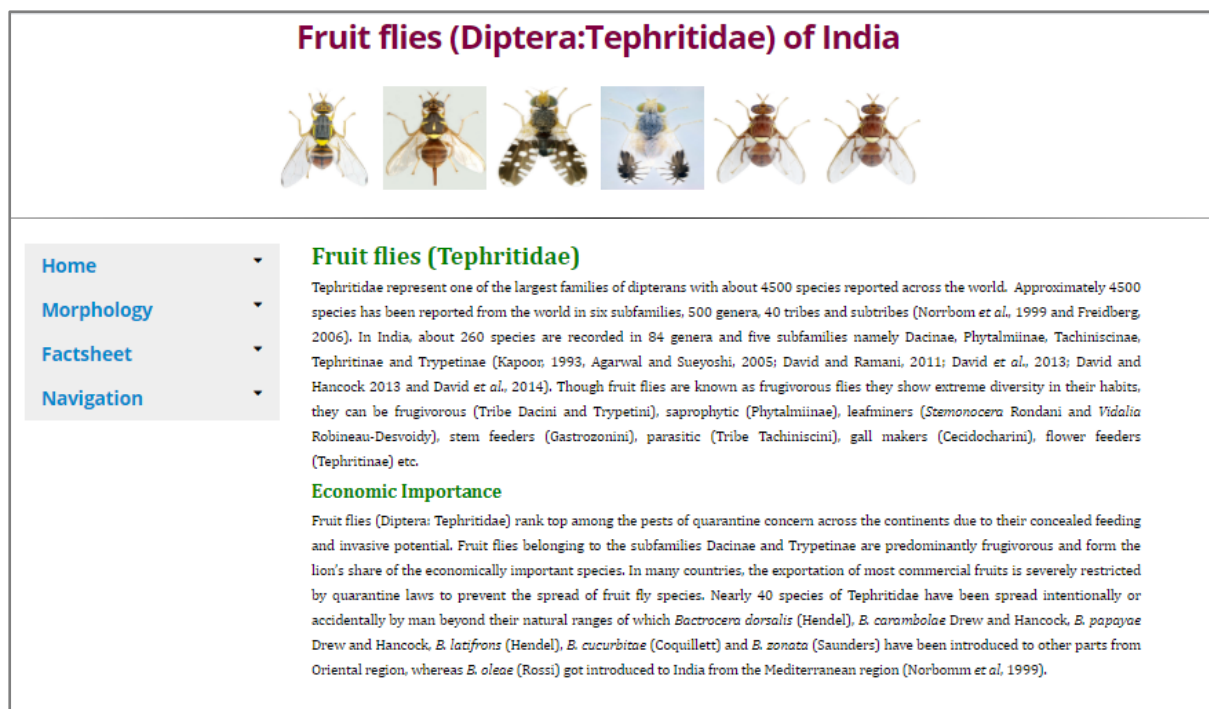**Figure 9.** Home page with Design 2 pattern

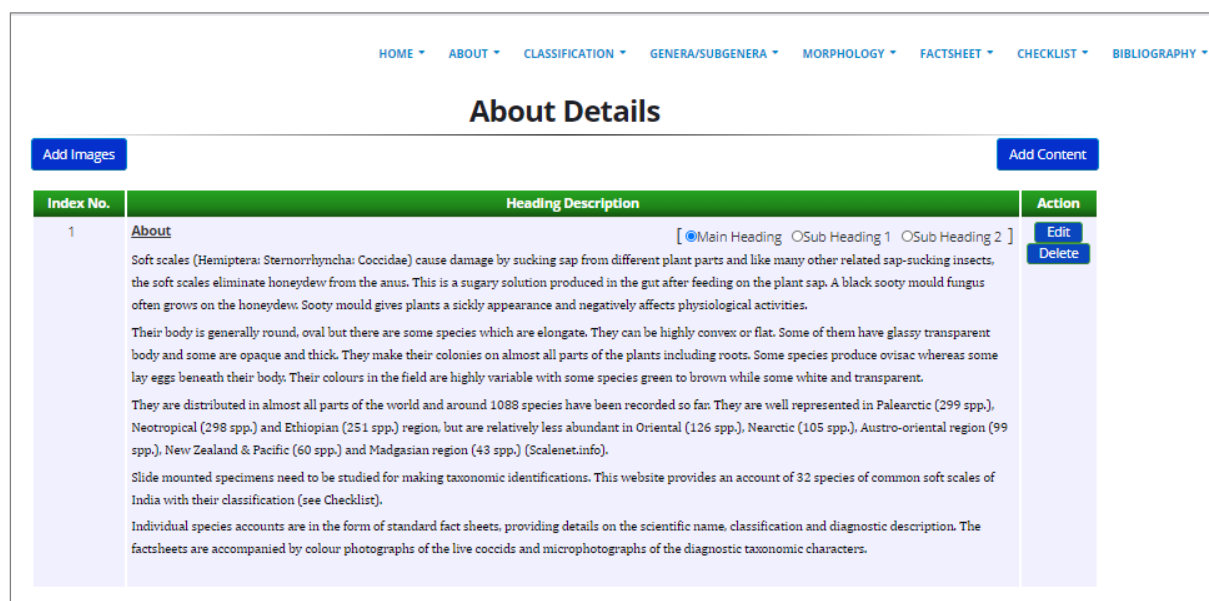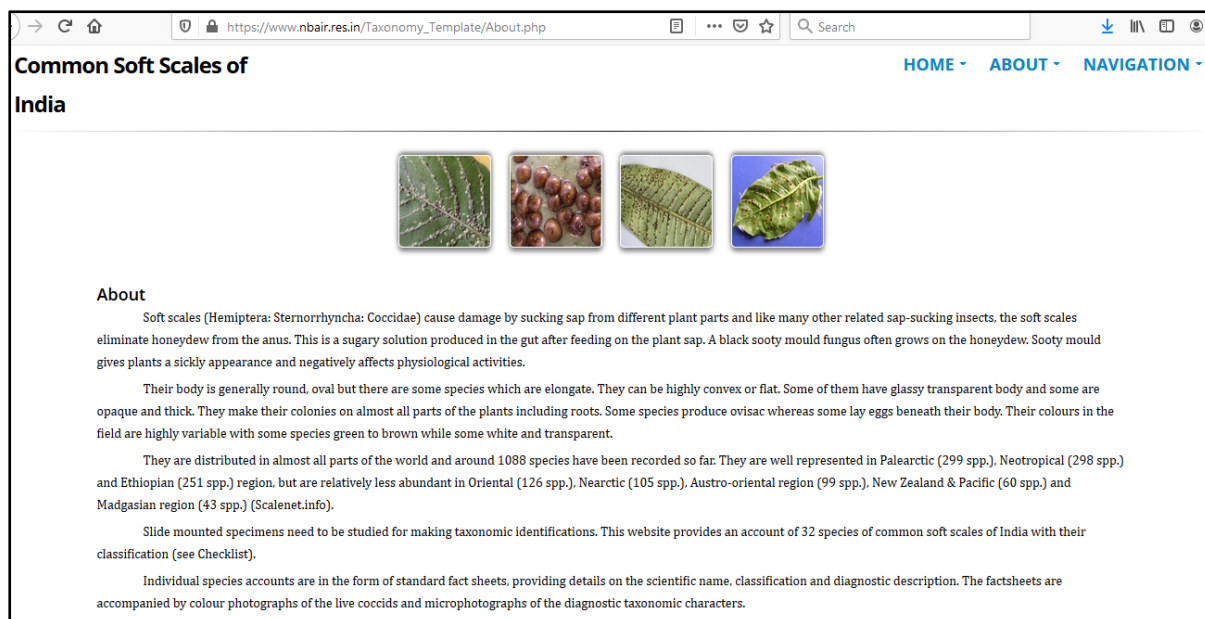**Figure 10.** Home Page with Design 3 pattern

Figure 11. The 'Add Images' option in About webpage

Figure 12. The view of About Page after adding the content and images

4. Classification Page

The entry form of Classification page is given in Figure 13 and Figure 14. Classification is based on FAMILY or TRIBE and link is to be provided to navigate to the detailed page. Classification Entry Form allows the user to add content in the form of Main heading, subheadings and description details and the classification web page will be displayed as per the details given by the user.

Figure 13. Entry Form of Classification Page

Figure 14. Entry form of Classification page with Edit/Delete option

5. Genera/Sub Genera Page

Genera/Sub Genera page is created to add Genera/Sub Genera details by using the Entry Form of it. This can be navigated to 2nd page by using 'Add Content' option within the subgenus heading and the content can be further Add, Edit, Delete under each species in the list. The entry form of Genera/Sub Genera are given in Figure 15 and Figure 16.

Figure 15. Genera/SubGenera Entry Form for Page 1

Figure 16. Genera/SubGenera Entry Form for Page 2

6. Morphology Page

Morphology Entry Form allows to add the morphology details about the insect species by giving Main heading, Subheadings and Description details. The user can create 'Link Text', which helps to navigate to the next page of morphology based on character/shape/structure wise and can upload the relevant pictures as well. The entry form of Morphology page is given in Figure 17 and Figure 18.

Figure 17. Entry Form of Morphology Page 1

Figure 18. Entry Form of Morphology Page 2

7. Fact Sheet Page

The feature 'Add Content' is given to add the content as in the form of Main heading, Sub headings and Description details. The feature 'Add species' is plays an important role to add the nomenclature/classification details up to species level. The set of species details can be given by uploading the MS-Excel file and by clicking 'Import MS-Excel File'. The template file is given for the reference and can be viewed by clicking the option, 'Species Import Template'. The file must contain the details as Order, Superfamily, Family, Subfamily, Tribe, Subtribe, Genera, Subgenera, Species, Name of the author, year, Original (Y/N) and Synonyms. The Original (Y/N) option refers, whether the author is original, which means that the author name to be mentioned without parenthesis.

The 'Fact Sheet', 2nd page contains information about (i) Taxonomy placement or Classification as per the nomenclature (ii) Synonyms (iii) Common names (iv) Behaviour (v) Biology (vi) Distribution details (vii) Seasonal occurrence (ix) Host plants recorded and (x) Pictures as per the species selection. The entry forms of Factsheet web pages are given in Figures 19 - 24.

Figure 19. Entry Form of Factsheet with Add Content and Add Species features

Figure 20. Entry form for Add Species details in Fact sheet page

Common Soft Scales of India

MORPHOLOGY ▾   FACTSHEET ▾   NAVIGATION ▾

Factsheet Species Data Entry

Import MS-Excel File   Species Import Template

Upload The files
[Choose File] Species Imp...Format-3.xlsx

Order	Genera	Species Name	Author	Year	Original
Insecta	Cardiococcus	bivalvatus	Green	1903	No
Insecta	Ceronema	fryeri	Greeb	1922	Yes
Insecta	Ceroplastes	destructor	Newstead	1917	No
Insecta	Ceroplastes	rubens	Maskell	1893	No
Insecta	Coccus	formicarii	Green	1896	No
Insecta	Coccus	hesperidum	Linnaeus	1758	No
Insecta	Coccus	latioperculatum	Green	1922	No
Insecta	Coccus	longulus	Douglas	1887	No
Insecta	Coccus	viridis	Green	1889	No

[Upload Species Details]

Order	Super Family	Family	Sub Family

Tribe	Sub Tribe	Genera	Sub Genera

Species Name	Author	Year	Original
			○Yes ○No

Synonyms

[Submit] [Back]

Figure 21. Entry form to upload the species details as MS-Excel File

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HOME ▾   ABOUT ▾   CLASSIFICATION ▾   GENERA/SUBGENERA ▾   MORPHOLOGY ▾   FACTSHEET ▾   CHECKLIST ▾

Factsheet Details

[Add Content]

Index No.	Heading Description	Action
	No record found . . . !	

Species Details

[Add Heading] [Add Species]
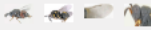
Index No.	Species	Action
1	**Factsheet Index** [●Main Heading ○Sub Heading 1 ○Sub Heading 2]	[Edit] [Delete]
2	**Subfamily: Chalcidinae** [○Main Heading ●Sub Heading 1 ○Sub Heading 2]	[Edit] [Delete]
3	*Brachymeria* Westwood, 1829	[Edit] [Delete]
4	*Chalcis* Fabricius, 1787	[Edit] [Delete]
5	*Conura* Spinola, 1837	[Edit] [Delete]
6	*Cratocentrus* Cameron, 1907	[Edit] [Delete]
7	*Brachymeria albicrus* (Klug)	[Edit] [Delete]
8	*Brachymeria albotibialis* (Ashmead)	[Edit] [Delete]

Figure 22. Entry Form for Add species feature in Factsheet page 1

Figure 23. Entry form for add details under each species in Factsheet page 2

Figure 24. Entry form for add details under each species of Factsheet Page 2

8. Checklist Page

The Checklist Entry Form allows the user to Add content in the form of Main heading, Sub heading and Description. 'Add Link Item', option has given to add more content and can be navigated to the same page / Next Page or any external URL. The entry form of Checklist is given in Figure 25 and Figure 26.

Figure 25. Entry form of Checklist

Figure 26. Link Entry for the content from Checklist

9. Bibliography Page

Bibliography entry form allows the user to enter the name of the authors, year of publication and reference details like title of the paper and journal name. The entry form of Bibliography is given in Figure 27. The web view of Bibliography page is given in Figure 28.

Figure 27. Entry form of Bibliography Page

Figure 28. Web view of Bibliography Page

10. Credits and Links Pages

CREDITS Page can be created by using the CREDITS Entry form which helps to add content in the form of Headings and Description.

LINKS Entry form helps to add the Headings for Hyper Link Text and the URL for the Link Text. Option has given whether the URL should open in the same page or new page.

Figure 29. Entry form of CREDITS page

Figure 30. Entry form of LINKS Page

11. Contact Us Page

The Contact details entry form allows the user to add the contact details with different titles by using 'Add Content' button. Google location map can be added in Contact Us by using Google Location button.

Figure 31. Entry form of Contact Us page

12. Color and Font Setting

Selection of font, font size, color of each object like database title, header, body, footer, menu item, main headings, sub headings, footer text and background color for menu items, header, body, footer can be set by using the option Color and Font Setting. The features of Color and Font Setting is given in Figure 32.

Figure 32. Color and Font settings for different key pages and menu options

The developed website content is stored at ICAR-NBAIR server located at ICAR-National Bureau of Agricultural Insect Resources, Bangalore, Karnataka, India and the website link will be created automatically with a key "DB-Title", and displayed at Navigation page. The user can use this Web link to showcase the developed website on insect taxonomy.

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