CephsInAction database manual

1 Login

Web-address to the CephsInAction database application: http://www.imr.no/cephsinaction/
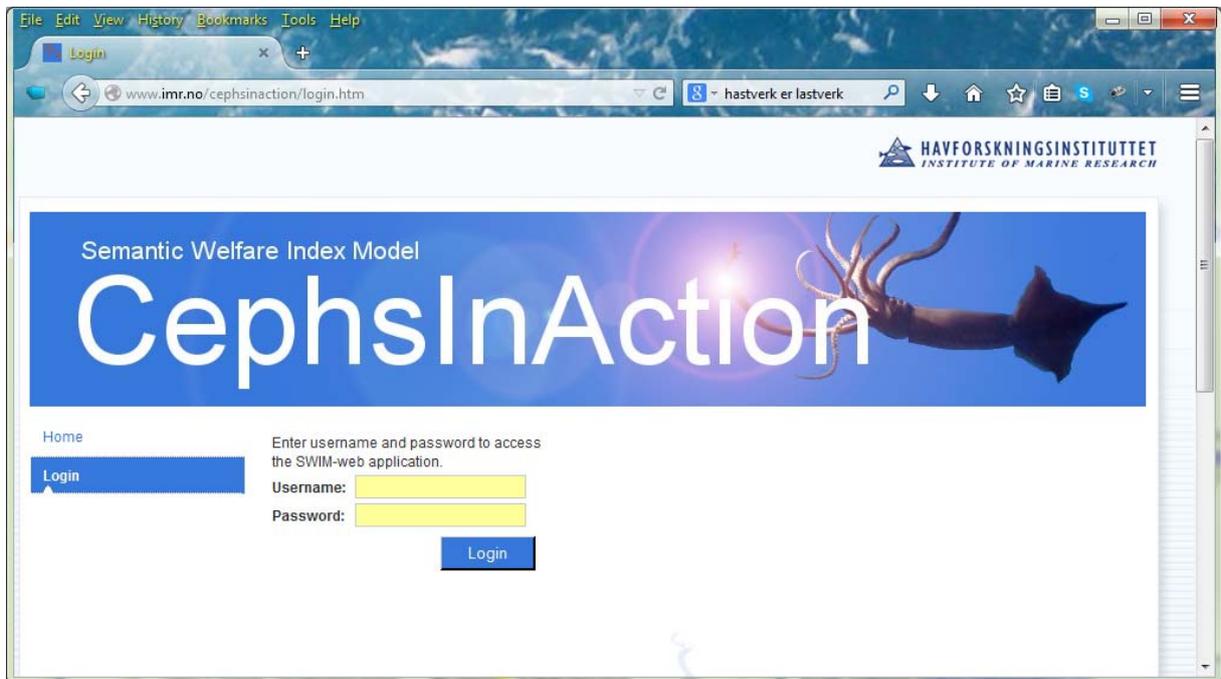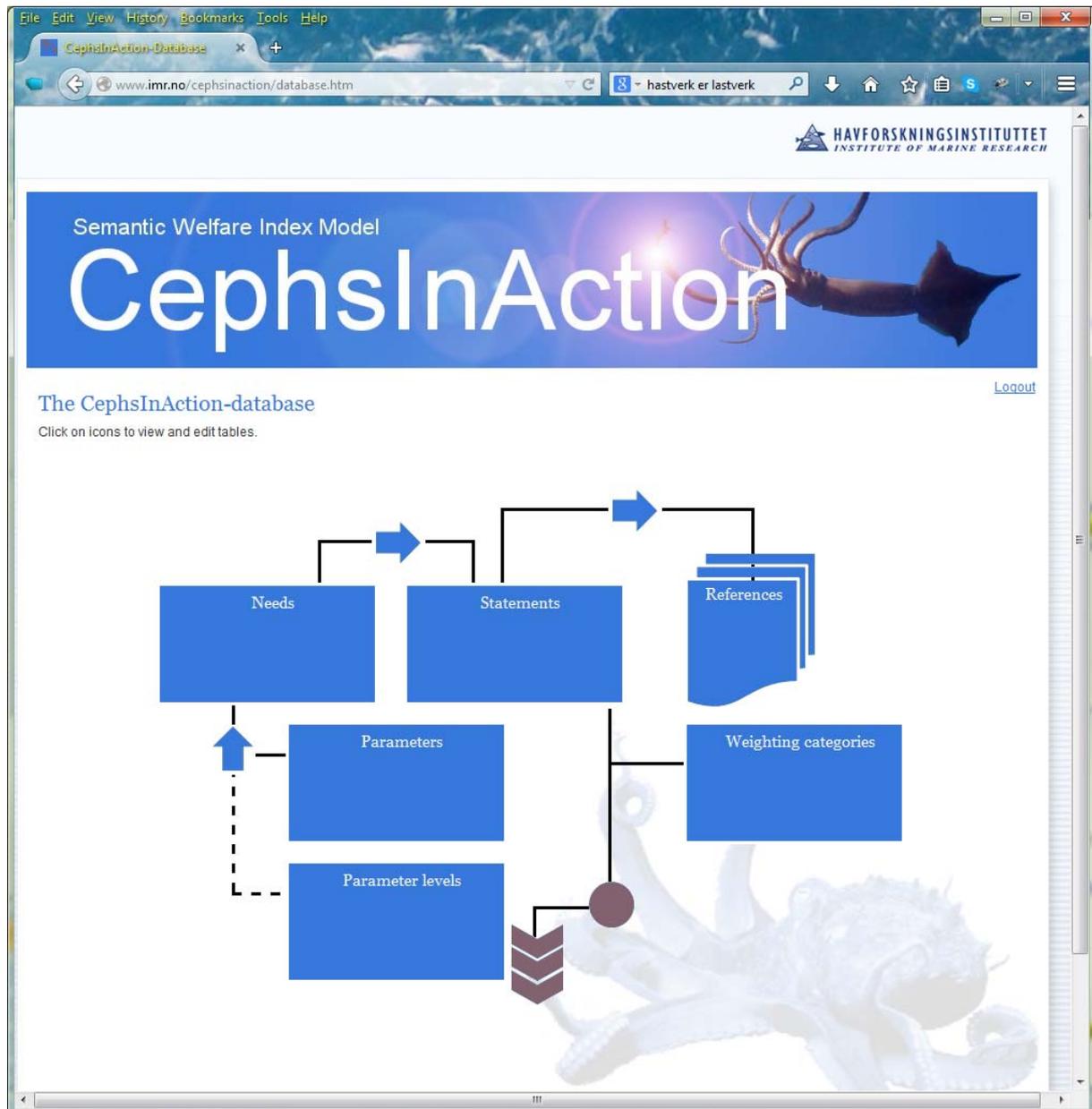

The CephsInAction database application Login page.

Enter username and password. If you do not have, or have forgotten your, username and/or password email Lars H. Stien: lars.stien@imr.no.

2 Database overview

After the login the first page that the application shows is the main page of the database application, this page gives an overview of the different tables in the database and how they are linked.

The main page of the CephsInAction database application. There are six main tables: the Needs, the Statements, the References, the Parameters, the Parameter levels and the weighting categories table. The arrows indicates that elements between the associated tables should be linked.

3 References

A typical workflow when entering data into the database is to find an article with interesting information about how different parameters affect fish welfare (parameters that affect welfare are possible Welfare Indexes (WIs). Example of a possible WI is Appetite). The first step after finding the article is to enter its specifics into the database **<Click the References element on the database overview page to enter the References input page>.**

The references input page. The first part of the page is a form where you can enter data about the article you want to extract statements of how different parameters affect welfare from. The second part displays a table of the references that already have been added.

First check that the article is not already references in the database. If not enter information into the form. The information is stored when you select the **[Yes]-**option in the Store pulldown. The reference is automatically assigned an ID-number that can be used later for quick reference. Click the overview-icon in the lower right corner, or the 'Database'-link after 'You are here', to return to the main page.

4 Statements

After the reference data about the article is entered in the database it is time to extract statements about how different parameters affect fish welfare. These statements should be as 'stand alone' as possible, meaning that it should not be necessary to go back and read the original article to know about any caveats; for instance that the statement is only true for already stressed animals. **<Click the Statements element on the database overview page to enter the Statements input page>.**

Example of a statement:
"Cuttlefish reared at low densities (0-1 % of surface area) move very little and tend to stay in one area lying together closely. At high densities (~5 % of surface area) they swim about most of the time, and frequently displace each other from the bottom jetting around the rank and inking (stress related behaviour)"

The upper part of the statements input page contains a form where you can enter statements about how different parameters affect animal welfare, and click for which specie(s), subclass(es) and life stage(s) the statement is about.

After you have entered a new statements into the form, click on which specie(s), subclass(es) and life stage(s) the statement concerns, and then press the **[Save]** button to store the statement.

Repeat this for all statements you can find based on the article you are reading.

It is good to have as much information about how different levels of a parameter affect animal welfare in a statement. Here is another example:

"Cuttlefish reared at high density (~3 % of surface area) hovered more (~75 % vs. ~60 % of the time) and sat at the bottom less(5 % for females and 25 % for males vs ~30 % and ~35 % of the time), had more aggression (display of zebra stripes), had less appetite, and especially females were displaced by other cuttlefish and received injures compared to cuttlefish reared at low density (~0.2 % of surface area)."

The lower part of the statement input page contains a table over the statements in the database.

By default the table of the statements in the database show all statements. If you only want to see statements updated today you can click on the 'Updated since...'- box. You can update / correct statements by selecting Update in the Action-pulldown. The statement will then appear in the input form, press the **[Save]** button to store the change.

Click the overview-icon in the lower right corner, or the 'Return to database main page'- link, to return to the main page.

5 Linking statements to references

All statements in the database must be linked to at least one reference in order to be valid.
. **<Click the arrow element between the statements and the references elements on the database overview page to enter the Statements References linking page>.**

The references statements linking page. The first part of the page is a form where you select which statement to link with which reference. The second part displays a table of statements-reference links.
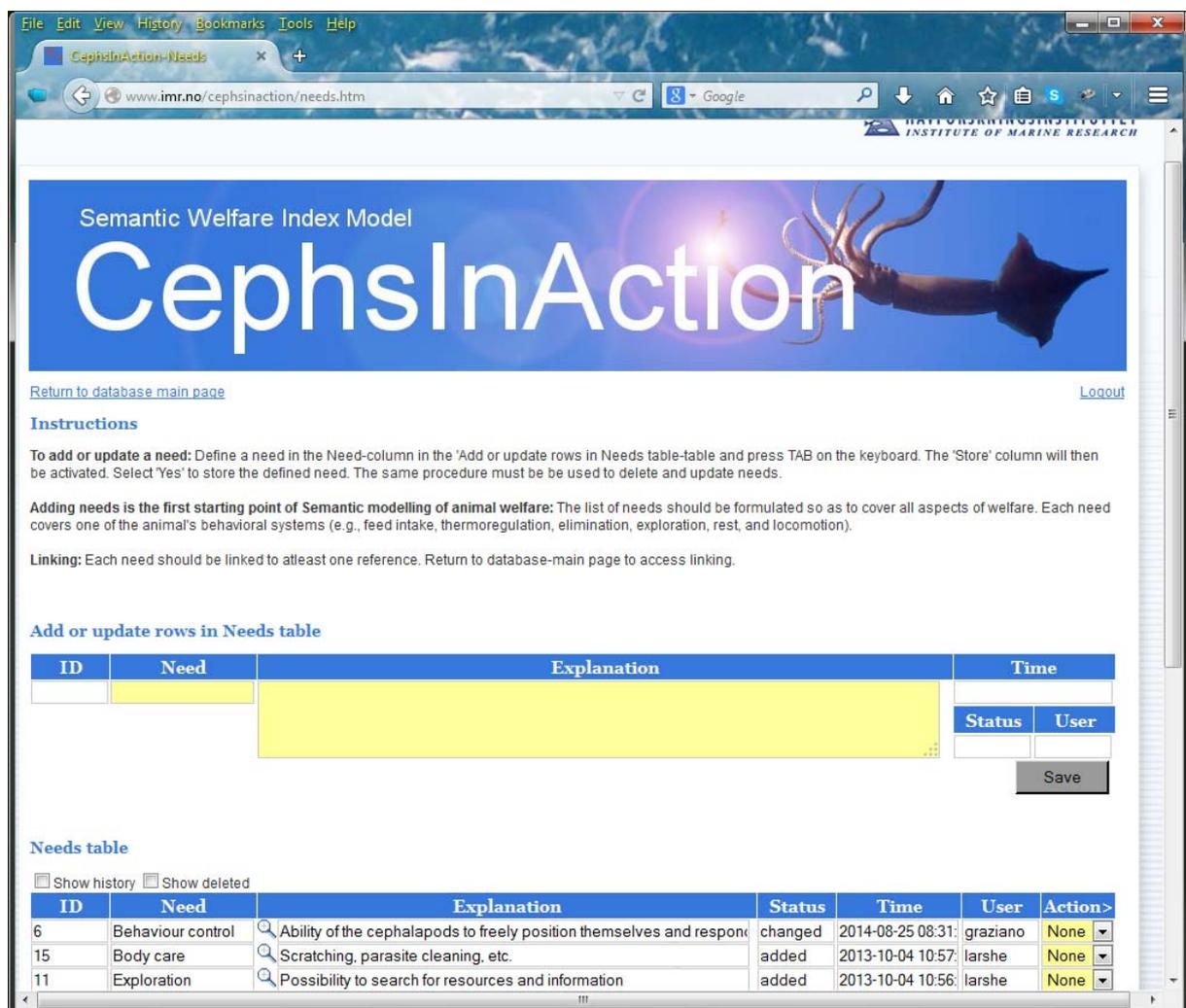
To link a statement with a reference select the statement in the pulldown and the correct reference in the pulldown. This work can be made easier by having the 'Only non-linked statements in pulldown' option hatched.

Click the overview-icon in the lower right corner, or the 'Return to database main page'- link, to return to the main page.

6 Needs

The qualitative welfare experience of an animal is created by the reward and punishment systems in the emotional brain, and involves experience, memories and re-evaluation of needs in anticipation of physiological, psychological and behavioural requirements. Based on this in semantic modelling we assume that the animal experience a continuum of welfare states, which may vary from very poor to excellent and that are closely related to the degree of fulfilment of the animals' welfare needs, i.e.needs monitored by the emotional brain.

The needs table in the database is based on the list of needs presented in Stien et al., 2013 fro salmon. To update with cephalopod specific needs enter the need, and rationale for why this is a need into the form and press the **[Save]**-button.

The upper part of the needs page contains a form where you can enter new needs for cephalopod, the lower part contains a list of suggested needs.

Click the overview-icon in the lower right corner, or the 'Return to database main page'- link, to return to the main page.