

## **CCMAPPER HELP**

**Version 1.0**

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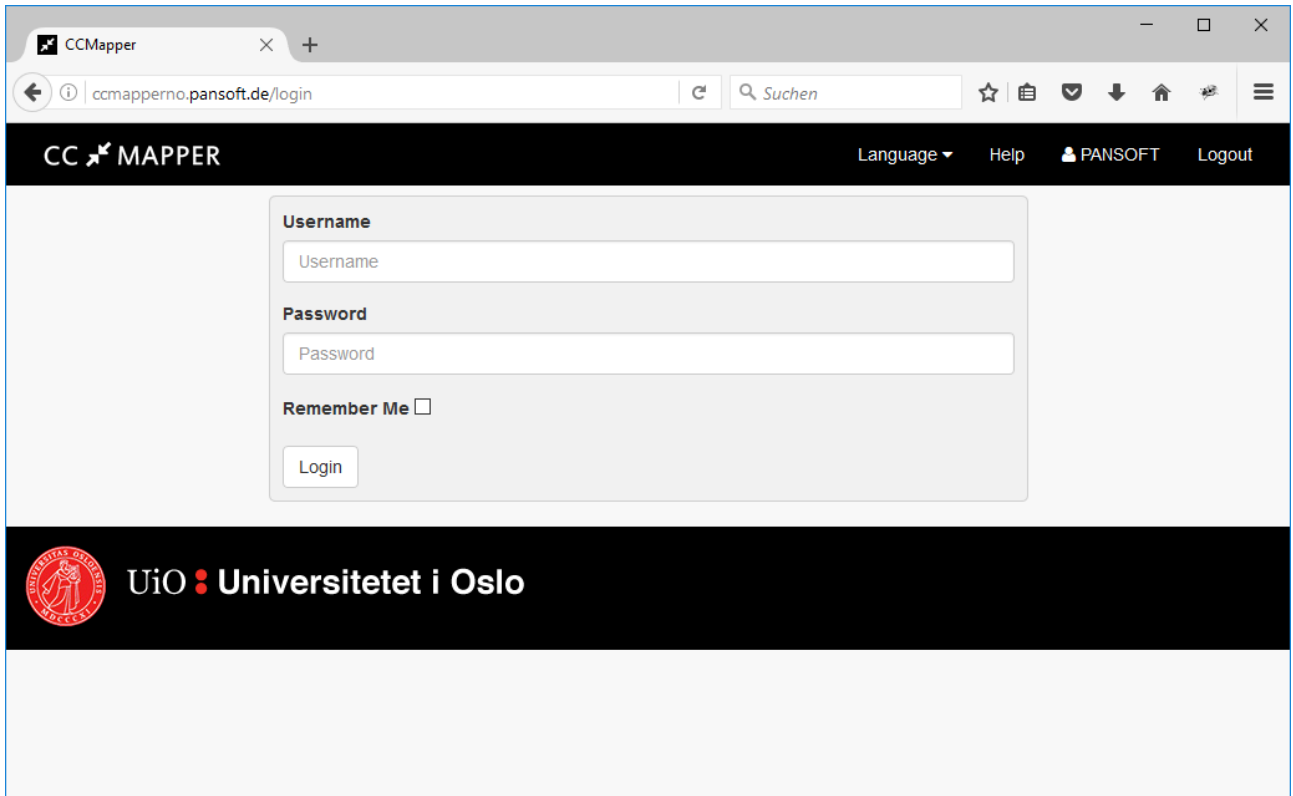
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## 1. Introduction

This Word document is a draft of the user help for ccmapper and will be the source for the online help system. After the Norwegian team confirms the content of this document it will be transformed to the online help of ccmapper and be part of the application.

## 2. Login



SCREENSHOT: LOGIN

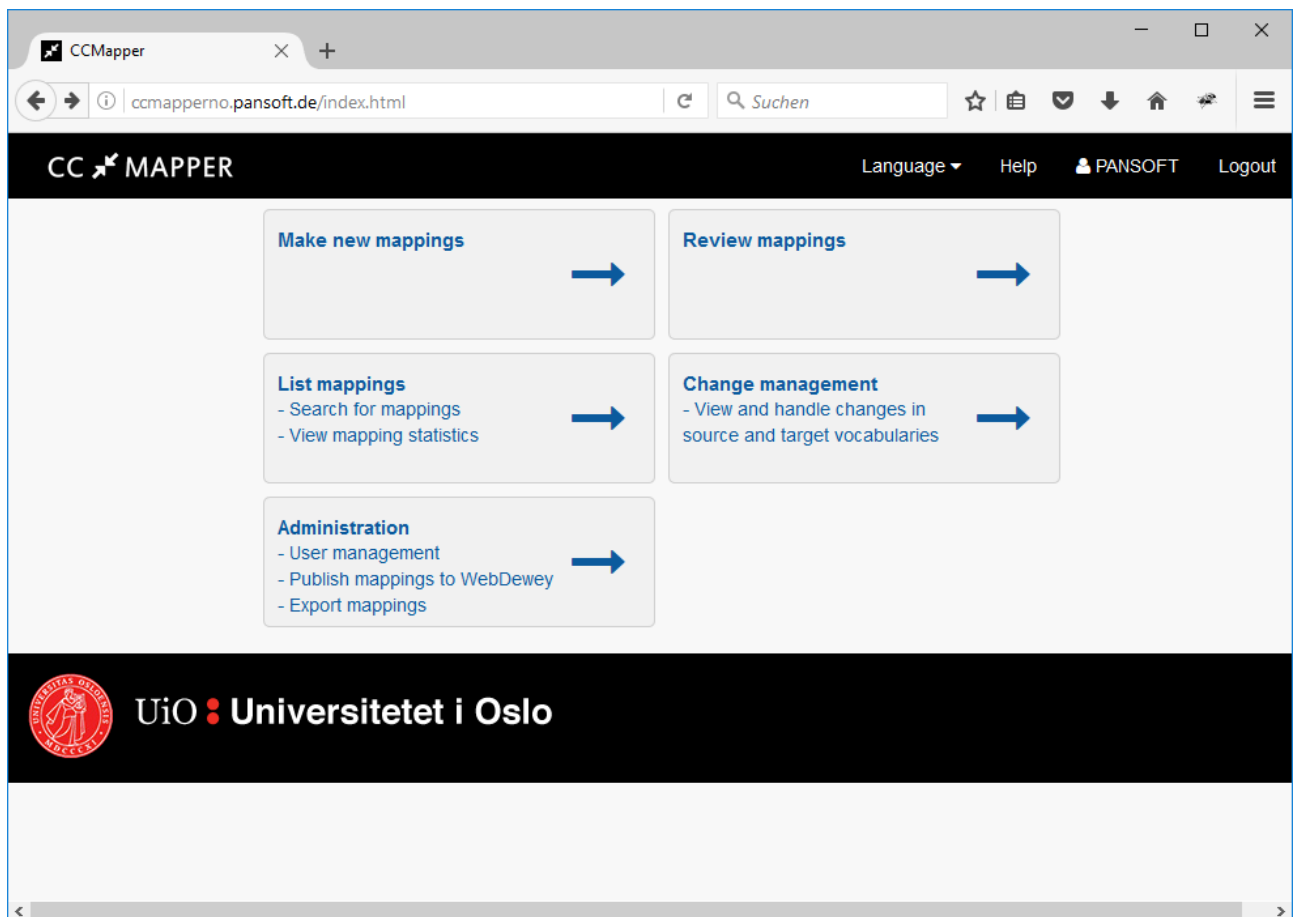
*Username:* Username for login of ccmapper application (not case sensitive).

*Password:* Password for login of ccmapper application (case sensitive).

*Remember Me:* Checkbox set to true will keep Username and Password until Logout function is used. This feature may not work if the same user works on multiple computers, multiple browsers on the same computer or multiple tabs inside the same browser.

*Login (button)*: Logs user into ccmapper.

### 3. Main menu



SCREENSHOT: MAIN MENU

#### 3.1. Screen elements

*Make new mappings*: Provides access to the mapping screen (see also chapter 4).

*Review mappings*: Provides access to the review screen. (see also chapter 4)

*List mappings*: Provides access to the search screen, where besides searches statistics can be performed. (see also chapter 5)

*Change management:* Provides access to the change management screen. (see also chapter 6)

*Administration:* Provides access to the administration screen. (see also chapter 7)

## 3.2. Header

*Logo of ccmapper:* Provides on all screens access to the main menu.

*Language:* User can choose between Norwegian and English user interface.

*Help:* Provides on all screens access to the online help system.

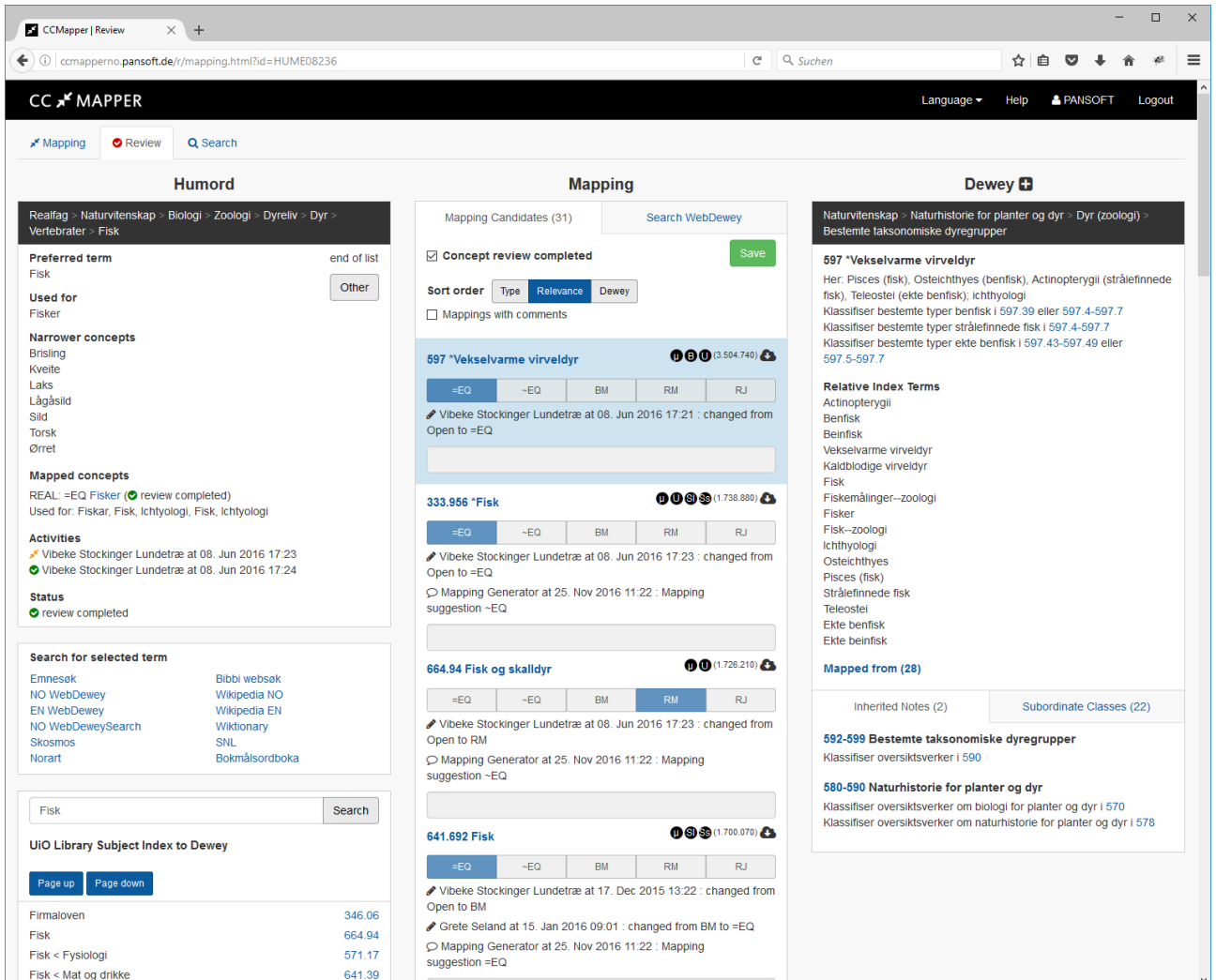
*Username:* Shows on all screens the current user.

*Logout:* Logout of the current user from ccmapper.

## 3.3. Footer

*Logo of University of Oslo:* Provides access to the website of the University of Oslo.

## 4. Make new mapping/Review mappings



The screenshot displays the CCMapper web application interface for reviewing mappings. The browser address bar shows the URL: `ccmapper.pansoft.de/r/mapping.html?id=HUME08236`. The application header includes the CCMAPPER logo, navigation tabs for Mapping and Review, and a search bar. The main content area is divided into three columns:

- Humord:** Shows the current source vocabulary 'Fisk' under the parent 'Naturvitenskap > Biologi > Zoologi > Dyrrelv > Dyr > Vertebrater > Fisk'. It includes sections for 'Preferred term', 'Used for', 'Narrower concepts', 'Mapped concepts', 'Activities', and 'Status'. A search box for the selected term is also present.
- Mapping:** Displays 'Mapping Candidates (31)' and a 'Search WebDewey' button. It shows a list of candidates with their Dewey numbers and actions. The first candidate is '597 \*Vekselvarme virveldyr' (3,504,740) with actions -EQ, -EQ, BM, RM, RJ. The second is '333.956 \*Fisk' (1,738,880) with actions -EQ, -EQ, BM, RM, RJ. The third is '664.94 Fisk og skalldyr' (1,726,210) with actions -EQ, -EQ, BM, RM, RJ. The fourth is '641.692 Fisk' (1,700,070) with actions -EQ, -EQ, BM, RM, RJ.
- Dewey:** Shows the selected Dewey term '597 \*Vekselvarme virveldyr' and its relative index terms: Actinopterygii, Benfisk, Beinfisk, Vekselvarme virveldyr, Kaldblodige virveldyr, Fisk, Fiskemålinger-zoologi, Fisker, Fisk-zoologi, Ichthyologi, Osteichthyes, Pisces (fisk), Strålefinnede fisk, Teleostei, Ekte beinfisk, Ekte beinfisk.

SCREENSHOT: MAPPING/REVIEW

### 4.1. Left column (source vocabulary)

*Humord/Realfagstermer:* The headline in left column indicates which source vocabulary is currently used on the screen.

*Parent information:* In case of Humord the parent information is shown on top of the term. In case of multiple parents all parents are shown and can be switched.

*Preferred term:* Current source vocabulary term.

*Next (button)*: Shows the next source vocabulary term. Next in the context of the Mapping screen shows the next source vocabulary term in the status unassigned. Next in the context of the Review screen shows the next source vocabulary term in the status mapping completed.

*Other (button)*: Launches the screen concept picker. For more information about concept picker see chapter 4.4.

*Used for*: Synonyms for current source vocabulary term (Preferred term).

*Narrower concepts*: Narrower concepts for current source vocabulary term (Preferred term).

*Mapped concepts*: Mappings between the current source vocabulary term (Preferred term) and other source vocabularies.

*Activities*: History log showing entries for each save on the mapping/review screen. For more information about status, workflow and roles see chapter 4.5.

*Status*: Shows the current status of the current source vocabulary term (Preferred term). For more information about status, workflow and roles see chapter 4.5.

*Search for selected terms*: Provides quick access to external sources outside ccmapper. The current source vocabulary term (Preferred term) is a parameter, so that the external sources are launched in the context of the current source vocabulary term. Please note, that in the special use case, that a synonym (Used for) is available with the language setting English, the English external source ("EN WebDewey" and "Wikipedia EN") are launched with the English synonym instead of the current source vocabulary term (Preferred term).

*UiO Library Subject Index to Dewey*: Searches the current source vocabulary term (Preferred term) in the data of UiO Library Subject Index to Dewey.

## 4.2. Column in the middle (Mapping candidates and search for WebDewey)

*Mapping candidates (Tab)*: Shows the list of mapping candidates and mappings.

*Concept mapping/review completed:* Allows to change together with the save button the status of the current source vocabulary term. For more information about status, workflow and roles see chapter 4.5.

*Sort order:* Changes the sort order to one of the following settings: Type, Relevance and Dewey number. The checkbox "Mapping with comments" sorts such mappings to the top. For more information about relevance see chapter 4.6.

*Mapping (candidate) entry:* Shows the following information of the mapping (candidate): Dewey number, mapping candidate algorithms, imported/user generated/automatic generated mapping, mapping type, history log of each mapping, user comment. The mapping (candidate) entry, which is currently the first one on the list reflects the Dewey number on the right side. Together with the save button the mapping type and user comment of a mapping can be changed.

*Search WebDewey (Tab):* This tab launches by default a search for the current source vocabulary term (Preferred term). The result set of Dewey numbers shows

*Search (button):* Other searches can be launched.

*Search inside:* Full text searches in the Dewey content. The setting "Relative Index" search only in that data and results in a different style result set with buttons for page up and page down.

*Sort order:* In case of a full text search this option allows to change the sort order of the result set.

### 4.3. Right column (Dewey)

*Dewey plus sign:* The plus sign on the right side allows to create temporary Dewey numbers. Temporary Dewey numbers are shown with a red exclamation mark. Temporary Dewey numbers can be used for mappings, which can not be published before an update with an official Dewey number replaces the temporary Dewey number.

*Parent information:* Parent information is shown on top of the Dewey number.

*Relative Index Terms:* Shows the relative index terms of the Dewey number.

*Components:* In case of a built number the components of the Dewey number is shown.



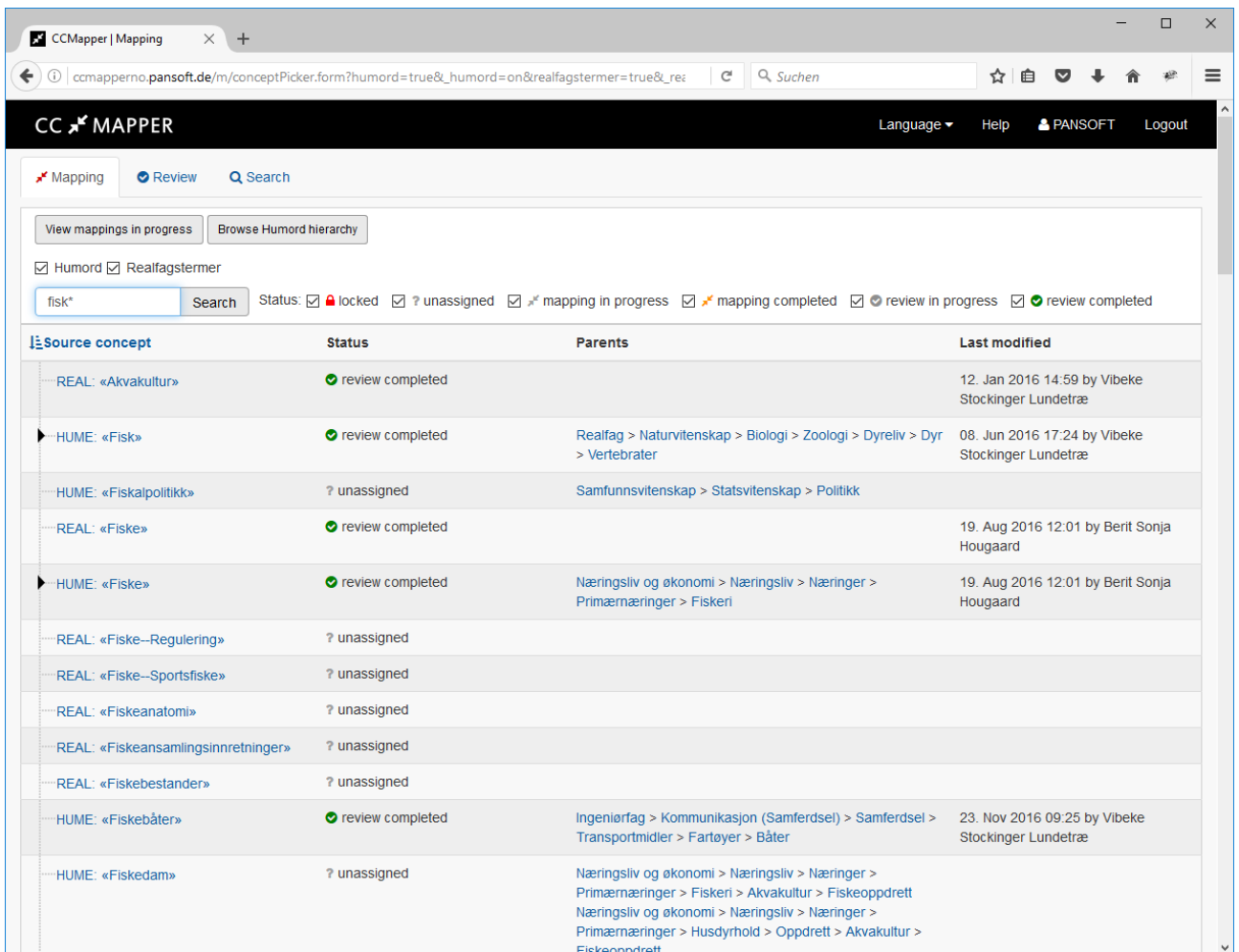
*Mapped from:* Shows other mappings to the Dewey numbers. Clicking on the headline "Mapped from" will show and hide the entries.

*Add to mapping candidates (button):* Adds a new mapping entry with the current source vocabulary term (Preferred term) and Dewey number.

*Inherited notes (Tab):* Lists all relevant notes from the parents of the current Dewey number.

*Subordinate Classes (Tab):* Lists all subordinated classes of the current Dewey number.

#### 4.4. Concept picker



Source concept	Status	Parents	Last modified
REAL: «Akvakultur»	review completed		12. Jan 2016 14:59 by Vibeke Stockinger Lundetræ
HUME: «Fisk»	review completed	Realfag > Naturvitenskap > Biologi > Zoologi > Dyrreliv > Dyr > Vertebrater	08. Jun 2016 17:24 by Vibeke Stockinger Lundetræ
HUME: «Fiskalpolitikk»	? unassigned	Samfunnsvitenskap > Statsvitenskap > Politikk	
REAL: «Fiske»	review completed		19. Aug 2016 12:01 by Berit Sonja Hougaard
HUME: «Fiske»	review completed	Næringsliv og økonomi > Næringsliv > Næringer > Primærnæringer > Fiskeri	19. Aug 2016 12:01 by Berit Sonja Hougaard
REAL: «Fiske--Regulering»	? unassigned		
REAL: «Fiske--Sportsfiske»	? unassigned		
REAL: «Fiskeanatom»	? unassigned		
REAL: «Fiskeansamlingsinnretninger»	? unassigned		
REAL: «Fiskebestander»	? unassigned		
HUME: «Fiskebåter»	review completed	Ingeniørfag > Kommunikasjon (Samferdsel) > Samferdsel > Transportmidler > Fartøyer > Båter	23. Nov 2016 09:25 by Vibeke Stockinger Lundetræ
HUME: «Fiskedam»	? unassigned	Næringsliv og økonomi > Næringsliv > Næringer > Primærnæringer > Fiskeri > Akvakultur > Fiskeoppdrett Næringsliv og økonomi > Næringsliv > Næringer > Primærnæringer > Husdyrhold > Oppdrett > Akvakultur > Fiskeoppdrett	

## SCREENSHOT: CONCEPT PICKER

*View mappings in progress (button):* Shows all source concept terms with the status mapping in progress. For more information about status information see chapter 4.5.

*Browse Humord hierarchy (button):* Shows a hierarchy view for the Humord source vocabulary.

*Search (button):* Launches a search with the search term and the settings for the source vocabulary (Humord or Realfagstermer) and the settings for status (locked, unassigned, mapping progress, mapping completed, review in progress and review completed). For more information about status information see chapter 4.5. For more information about search truncation see chapter 5.2.

## 4.5. Status, workflow and roles

### Roles

Users in ccmapper can have one or more of the following roles:

- a) Administrator (can set up users, but can not map or review)
- b) Mapper (can read and write on the mapping screen and read only on the review screen)
- c) Reviewer (can read and write on the review screen and read only on the mapping screen)

### Status and workflow

A source concept term can have one of the following status information:

- a) locked: No user in ccmapper can modify this source concept term. On a nightly base locked source concept terms are imported from  $\mu$  mapper. Locked source concept terms are supposed to be mapped in  $\mu$  mapper and not in ccmapper. After a locked source concept is mapped in  $\mu$  mapper it will be part of the nightly import of  $\mu$  mapper mappings and will replace inside ccmapper the locked source concept term with the imported source concept term.
- b) unassigned: Unassigned source concept terms have never be saved inside ccmapper. Users with the role Mapper can modify unassigned source concept terms.
- c) mapping in progress: Users with the role Mapper can modify mapping in progress source concept terms.

d) mapping completed: Both users with the role Mapper and Reviewer can modify mapping completed source concept terms. Users with the role Mapping can switch the status to mapping in progress. Users with the role Reviewer can switch from mapping completed to the status review in progress or review completed.

e) review in progress: Users with the role Reviewer can modify review in progress source concept terms. They can switch the status to review completed or switch the status back to mapping in progress.

f) review completed: After the entire mapping workflow is performed the source concept term will have the status review completed. Users with the role Reviewer can switch from review completed to review in progress.

## 4.6. Mapping candidates algorithms

### 4.6.1. Relevance of mapping candidate algorithms

Each algorithm (except the 2 Solr based algorithms) has a higher relevance compared to other algorithms.

The relevance follows this order with highest ranking first:

1.  $\mu$  mapper algorithm ( $\mu$ )
2. v mapper algorithm (v)
3. LCSH algorithm (L)
4. BS-emner nynorsk algorithm (N)
5. BS-emner bokmål algorithm (B)
6. USVD algorithm (U)
- 7a) Solr based stemming algorithm (Ss) - both Solr based algorithms have the same relevance
- 7b) Solr based lemmatized algorithm (SI) - both Solr based algorithms have the same relevance

In case multiple algorithms match for a mapping candidate the total relevance is increased.

### 4.6.2. Implementation of mapping candidate algorithms

This section describes the implementation of the mapping candidate algorithms:

#### 1. $\mu$ mapper algorithm ( $\mu$ )

In the first run, a set of mapping candidates are generated where

- (1) The prelabel or alllabel of the source concept matches the \$a part of the DDC index term

AND one of the following two applies:

(1.1) The target is not a synthesized number

(1.2) The target is a synthesized number and is an interdisciplinary number

AND

(2) the target is not part of table T3 (we're not mapping to that)

In a second run, we remove all candidates where there is already a mapping candidate to a class higher in the hierarchy, except for classes in the top levels (classes not having decimals in the notation). That is we remove all candidates to B where the notation for B is part of the notation for another candidate A. Since "530.12" is part of "530", we would never provide both of those, but "530.12" is not part of "500", so we could get both of those.

## 2. v mapper algorithm (v)

Based on the  $\mu$  mapper algorithm, but takes away all content in parentheses.

## 3. LCSH algorithm (L)

Based on the  $\mu$  mapper algorithm, but uses LCSH data instead of Relative Index data.

## 4. BS-emner nynorsk algorithm (N)

Based on the  $\mu$  mapper algorithm, but uses BS-emner nynorsk data instead of Relative Index data.

## 5. BS-emner bokmål algorithm (B)

Based on the  $\mu$  mapper algorithm, but uses BS-emner bokmål data instead of Relative Index data.

## 6. USVD algorithm (U)

Based on the  $\mu$  mapper algorithm, but uses USVD data instead of Relative Index data.

## 7 Solr based stemming algorithm (Ss)

A Solr based query with the following boosts:

```
q="Dyr"^10+Dyr+"Dyrearter"^2+Dyrearter+"Dyreliv"^0.5&qf=prefLabelExact^100+prefLabel^50+description^50+classHer  
e^30+startsWith^30+terminologies^30+definition^10+including^8+parentCaption^0.5
```

## 8. Solr based lemmatized algorithm (Sl)

Based on the Solr based stemming algorithm, but uses lemmatization instead of stemming.

## 4.7. Nightly imports from $\mu$ mapper

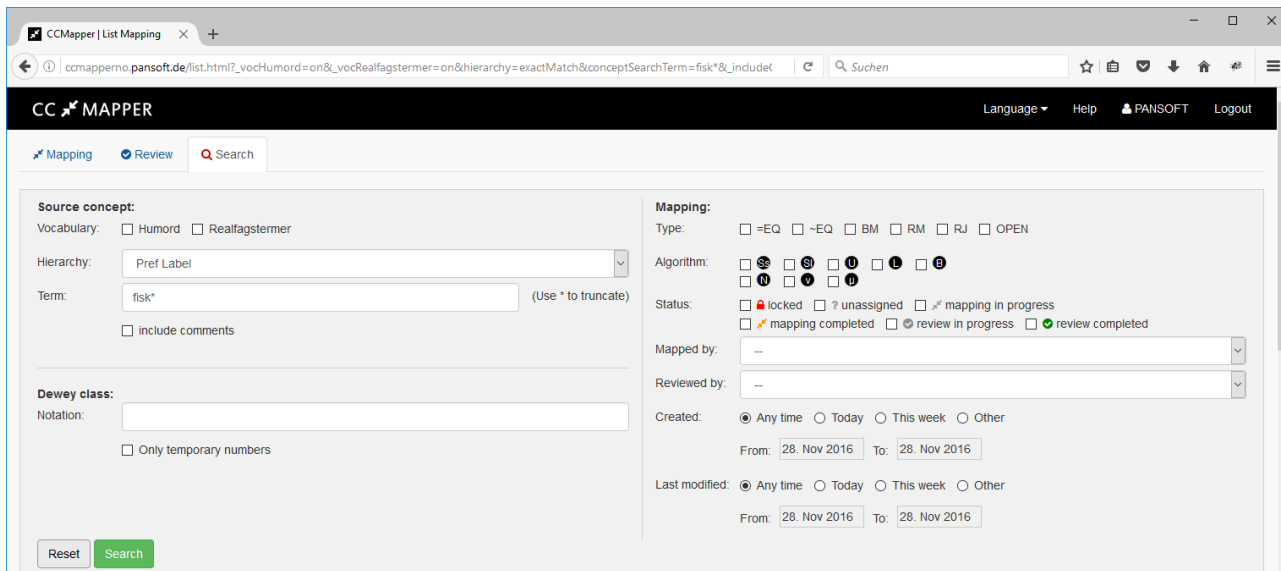
Every night the following 2 imports are performed:

- Import, which source vocabulary terms from  $\mu$  mapper should be locked.
- Import of mappings from  $\mu$  mapper

The other nightly imports, like Humord source vocabulary, Realfagstermer source vocabulary, LCSH, BS-emner, Dewey data, ... are turned on after the change management screen is implemented.

## 5. Search mappings

### 5.1. Screen elements



88 of 33,378 source concepts matches the filter criteria. 779 mappings matches the filter criteria

Source concept	Status	Type	Dewey class	Last modified
REAL: «Akvakultur»	review completed			12. Jan 2016 14:59 by Vibeke Stockinger Lundetræ
HUME: «Fisk»	review completed			08. Jun 2016 17:24 by Vibeke Stockinger Lundetræ
HUME: «Fiskalpolitikk»	? unassigned			
REAL: «Fiske»	review completed			19. Aug 2016 12:01 by Berit Sonja Hougaard
HUME: «Fiske»	review completed			19. Aug 2016 12:01 by Berit Sonja Hougaard
REAL: «Fiske--Regulering»	? unassigned			
REAL: «Fiske--Sportsfiske»	? unassigned			
REAL: «Fiskeanatomy»	? unassigned			
REAL: «Fiskeansamlingsinnretninger»	? unassigned			
REAL: «Fiskebestander»	? unassigned			
HUME: «Fiskebåter»	review completed			23. Nov 2016 09:25 by Vibeke Stockinger Lundetræ
HUME: «Fiskedam»	? unassigned			
REAL: «Fiskedammer»	? unassigned			

## SCREENSHOT: SEARCH

*Vocabulary:* Checkboxes for Humord and Realfagstermer support searching in the source concept vocabularies.

*Term:* Search term to search for. The checkbox include comments allows to search in the user comments. Please note, that the search finds also synonyms of the term (field "Used for" on mapping screen). For truncation of the search term see chapter 5.2.

*Notation:* Search for the Dewey class notation. The checkbox Only temporary numbers will search temporary numbers.

*Type:* Searches for mapping types: =EQ (Exact equivalence), ~EQ (Close equivalence), BM (Broader mapping), RM (Related mapping), RJ (Rejected) and OPEN (no selection made).

*Algorithm:* Searches for mapping candidate algorithms: Ss (Solr based candidate), SI (Solr lemmatized candidate), U (Matching term in UBO), L (Matching term in LCSH), B (Matching term in BS-emner bokmål), N (Matching term in BS-emner nynorsk), v (Term matches v algorithm) and  $\mu$  (Term matches  $\mu$  mapper algorithm). For more details about the mapping candidates algorithms see chapter 4.5.

*Status:* Searches for status information: locked, unassigned, mapping in progress, mapping completed, review in progress and review completed. For more details about status information see chapter 4.6.

*Mapped by:* Searches for the user, which mapped the source concept. Definition of a mapped by user: User, which saved a concept in any of the mapping states (mapping in progress and mapping completed). In case of multiple saves the user of the last save is stored. For  $\mu$  mapper data the mapping user is stored.

*Reviewed by:* Searches for the user, which reviewed the source concept. Definition of a reviewed by user: User, which saved a concept in any of the review states (review in progress and review completed). In case of multiple saves the user of the last save is stored. For  $\mu$  mapper data the reviewed user is stored.

*Created:* Searches for the creation date. The creation date is the date of the very first save on the mapping screen. For  $\mu$  mapper data no date is stored.

*Last modified:* Search for the last modified date. The last modified date is the date of the very last save on the mapping or review screen. For  $\mu$  mapper data no date is stored.

*Reset (button):* Resets all input fields on the search screen back to defaults.

*Search (button):* Launches the search with the settings on the screen.

*Search result list:* The search result list contains the following columns: Source concept, Status, Type, Dewey class and Last modified. Clicking on the column "Source concept" will change the sort order for this column between ascending and descending. For each line there is on the left side an arrow to show and hide the mappings for the line. The arrow on the top left of the search result list will show and hide the mappings for all lines.

## 5.2. Truncation

On the search screen and the concept picker the term input field support truncation with prefix and postfix \* wildcard. The question mark can be used as a placeholder for 1 character. The search is not case sensitive. Diacritics are decomposed.

### Examples

- a) "Hypertext markup language": 1 result
- b) "HYPERTEXT markup language": 1 result
- c) "hypertext markup languagé": 1 result (notice é at end)
- d) "markup language": zero results
- e) "\*markup language": 5 results
- f) "hypertext mark\*": 1 result
- g) "Hypertext markup lang??ge": 1 result

## 5.3. Statistics

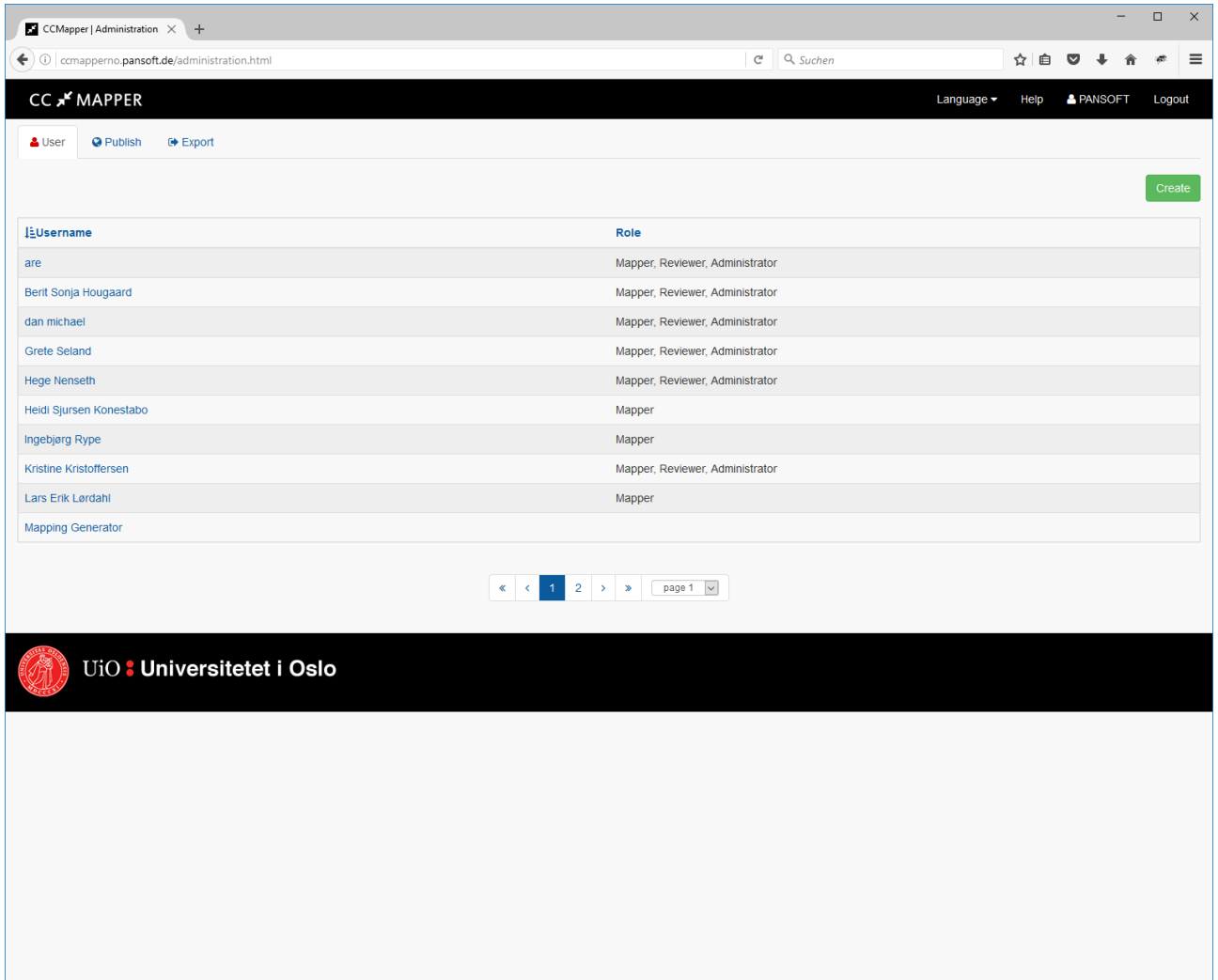
On top of the search result list the total number of source concepts matching the search criteria are shown together with the total number of source concepts. For small result sets in addition the numbers of mappings are shown. For large result sets a button can be pressed to count the numbers of mappings.

## 6. Change management

This feature is under construction and will be available soon.

## 7. Administration

### 7.1. User management



The screenshot shows a web browser window with the URL `ccmapper.pansoft.de/administration.html`. The page title is "CCMAPPER" and it includes navigation links for "User", "Publish", and "Export". A "Create" button is visible in the top right corner. The main content is a table with two columns: "Username" and "Role".

Username	Role
are	Mapper, Reviewer, Administrator
Berit Sonja Hougaard	Mapper, Reviewer, Administrator
dan michael	Mapper, Reviewer, Administrator
Grete Seland	Mapper, Reviewer, Administrator
Hege Nenseth	Mapper, Reviewer, Administrator
Heidi Sjursen Konestabo	Mapper
Ingebjørg Rype	Mapper
Kristine Kristoffersen	Mapper, Reviewer, Administrator
Lars Erik Lerdahl	Mapper
Mapping Generator	

At the bottom of the table, there is a pagination control showing "page 1" and navigation arrows.

The footer of the page features the logo of UiO : Universitetet i Oslo.

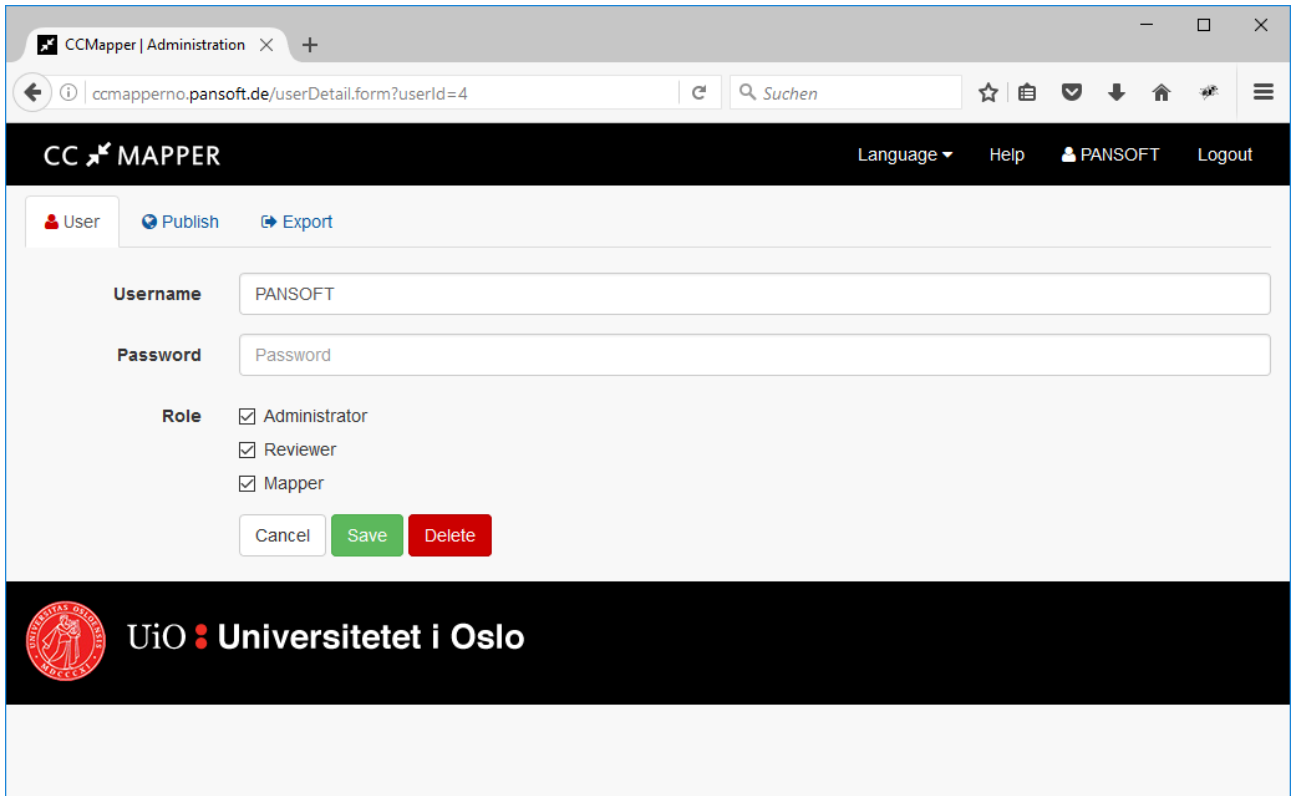
SCREENSHOT: USER ADMINISTRATION OVERVIEW

*Username (column):* Name of current user (not case sensitive on login screen)

*Role (column):* Role(s) of current user.



*Create (button)*: Launches the user administration detail screen to create a new user.



SCREENSHOT: USER ADMINISTRATION DETAIL SCREEN

*Username*: Name of current user (not case sensitive on login screen)

*Password*: Password of current user (case sensitive on login screen)

*Role*: Role(s) of current user. Each user can own multiple roles of the following list of roles: Administrator, Reviewer and Mapper. The role Administrator does not implicitly include the other roles like Reviewer and Mapper. For more details about workflow and roles see chapter 4.5.

*Cancel (button)*: Cancels the current screen without save.

*Save (button)*: Saves the settings for the current user.

*Delete (button)*: Deletes the current user.

### 7.3. Publish mappings to WebDewey

This feature is currently under construction and will be available soon.

### 7.4. Export mappings

This feature is currently under construction and will be available soon.