Project no. **INCO-CT-2005-003659**

Project acronym: **ASSESS-HKH**

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Instrument: **Specific targeted research or innovation project**

Thematic Priority: **Specific measures in support of international co-operation; A.2.1 Managing humid and semi-humid ecosystems**

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Manual for the ASSESS-HKH calculation module – Score Bioassessment (HKH*bios*)

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PU	Public	✓
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

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INSTALLATION AND FIRST RUN

- Installation of the HKHbios starts by running the setup.exe.
- The setup is installing the program to a folder of your choice and automatically creates two subfolders, one for the databases, one for pictures.
- Start the HKHbios.
- Login (see below).
- Select the menu **Extras** and subsequently the submenu **Options**.
- The program automatically sets the paths to the databases.
- Press **Connect** and a progress-bar shows that the program is connecting to its databases.
- Close the program and restart it again.

***Note**: You cannot change the country after the first start. To change the country the program must be installed again.*

LOGIN

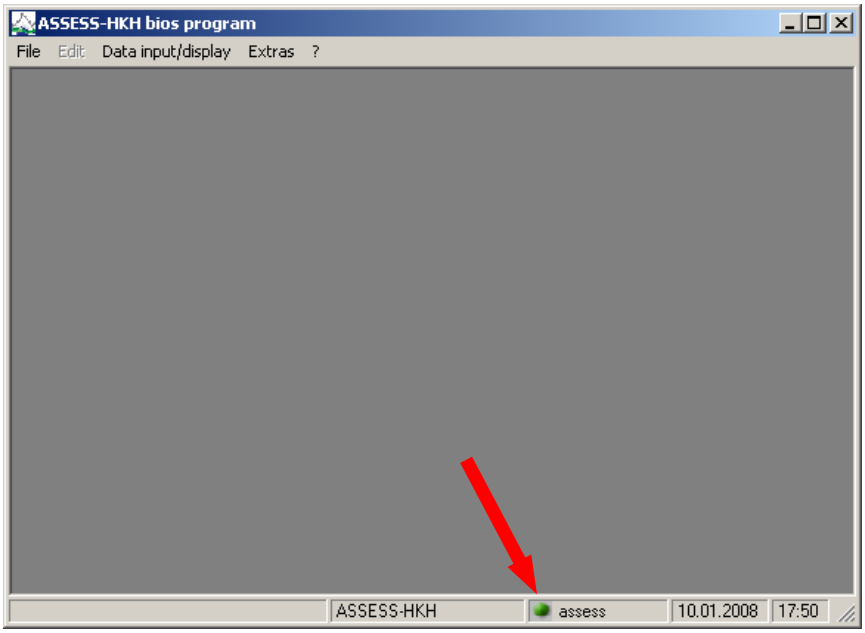
For login enter 'assess' in the field 'User' and 'hkh' in the field 'Password'.
The login-password cannot be changed in the current program-version.

GENERAL COMMENTS / ERRORS

The status bar shows the current user name and a red/green light.
Red light in the status bar: no connection to the database was established during the start of the program for the following reasons:

- wrong or missing entries for the directories of the database; changes are possible in the **Extras/Options** menu
- incorrect login (user name and/or password)

Green light: connection with database was successful.



BACKUP OF YOUR DATA

It is recommended to make backups of your data on a regular base. The data you have entered into HKHbios are stored in the subfolder '*installation directory*\database'. There are 5 files with the extension '*.mdb' that you should backup (with the exception of 'ep_db.mdb', which **does not** contain any user entered data).

MAIN MENU

The main program menu bar contains the following menus:

- File
- Data input/display
- Extras
- ?

File menu

Printer options.....options for the standard printer
Exit.....ends the HKHbios

Data input/display menu

Data input.....opens the window for HKHbios data input and calculation

Extras menu

Options.....opens the window for setting program options
Backup.....opens the window for backup of your data

? menu

Use help.....opens a window for help information
Info.....information about the program

METHOD

Scientific fundamentals of **HKHbios** are laid down in Deliverable 10 – 'ASSESS-HKH Methodology Manual describing fundamentals & application of three approaches to evaluate the river quality based on benthic invertebrates: HKH screening, HKH score bioassessment & HKH multimetric bioassessment'.

DATA INPUT AND HKHbios CALCULATION

After starting the HKHbios software the 'HKHbios' window is opened.

Entering general data

At the top of the window an ecoregion can be chosen from the selection list. River name, site name, sample date, sampling time and sample name have to be entered in the respective fields.

***Note**: According to the selected ecoregion the list of displayed taxa changes.*

Entering the sampled area

Before the HKHbios taxa can be entered, one of the following options has to be chosen according to how the abundance of taxa was recorded in the field:

- Abundance class: taxa were recorded in abundance classes; values from 1 to 5 with intermediate levels can be selected from the appropriate selection list
- Abundance: taxa were recorded per sample area; two areas can be chosen: 1,25 m² for 20 Multi-Habitat-Samples or 0,625 m² for 10 Multi-Habitat-Samples

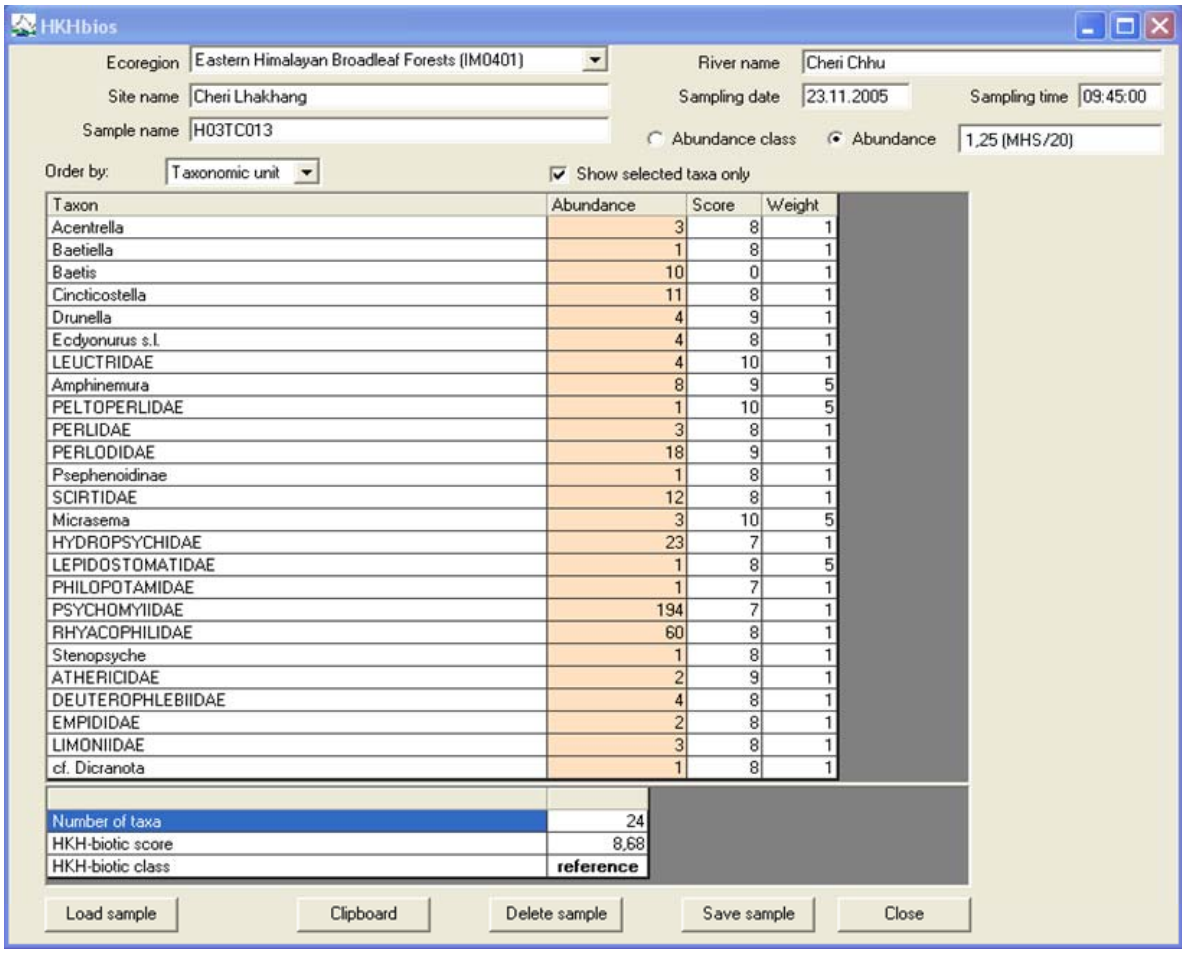
Choosing the display of taxa

Two different options of taxa-display can be chosen:

- taxonomic unit: systematic order
- alphabetically: alphabetical order

***Note**: If you tick the checkbox 'Show selected taxa only' only those taxa that you have chosen and which occur in your sample will be displayed.*

Entering HKHbios taxa, calculation of the HKH-biotic score and the HKH-biotic class

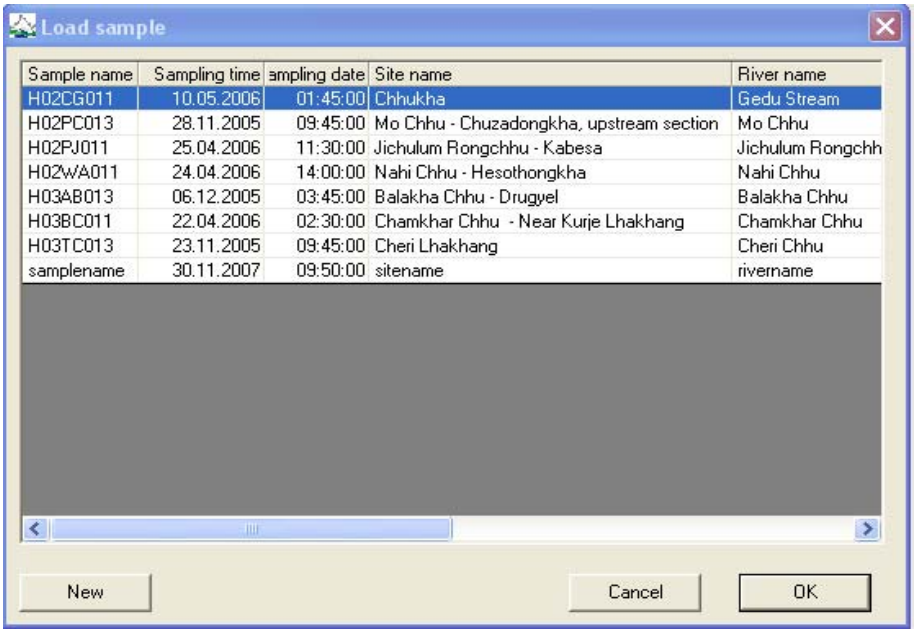


Data input takes place in the column that is marked in orange colour (named either 'Abundance class' or 'Abundance'):

- select one taxon and choose the relevant abundance class from the selection list, which opens when you click into the orange column, or enter the number of individuals
- the scores and weights for the different taxa will fill automatically when you leave the active cell or press the 'Enter'-key
- all entries will be **treated automatically** and as a result the number of taxa, the **HKH-biotic score** and the **HKH-biotic class** (river quality class) will be displayed at the end of the table

Options

- If you want to **load** a previously entered HKHbios sample, press the 'Load sample'-button. In the 'Load sample' window you can choose a sample from the selection list.



  If you want to enter a new HKHbios sample, press the 'New'-button.

- If you want to **copy** the HKHbios data of this sample into another Windows software (e.g. MS Word or MS Excel), press the 'Clipboard'-button, open the other software and choose 'insert' from the right-mouse-button-menu; the sample data, the HKHbios taxa and the HKHbios result will be copied.

***Note**: If you have ticked the checkbox 'Show selected taxa only' only those taxa that occur in your sample will be copied to the clipboard.*

- If you want to **delete** the HKHbios data of this sample, press the 'Delete sample'-button.

- If you want to **save** the HKHbios data of this sample, press the 'Save sample'-button.

- If you want to **close** the 'HKHbios' window, press the 'Close'-button.

EXPORT

To export HKHbios data to another Windows software, press the 'Clipboard'-button in the 'HKHbios'-window, open the other software and choose 'insert' from the right-mouse-button-menu. The sample data, the HKHbios taxa and the HKHbios result will be copied into the other software.

***Note**: If you have ticked the checkbox 'Show selected taxa only' only those taxa that occur in your sample will be copied to the clipboard.*

HELP-HOTLINES

- For technical problems please contact ROBERT VOGL (irv@irv-software.at).
- For all other problems please contact THOMAS OFENBÖCK (thomas.ofenboeck@boku.ac.at) and Otto Moog (otto.moog@boku.ac.at).