DARWIN INITIATIVE PROJECT SCHEDULE ref: 162/09/003

Organisation name: THE NATURAL HISTORY MUSEUM

Name of project: Tools for monitoring soil biodiversity in the ASEAN region

Project purpose: To devise cost effective rapid sampling protocols for assessing the biodiversity of termites, ants, earthworms and beetles.

Project objectives: to develop and test Rapid Biodiversity Assessment (RBA) protocols for termites, ants, earthworms and beetles; to publish studies in international peer-reviewed journals; to produce a handbook describing the RBA protocols and giving recommendations on how to reduce the impact of land-use change on soil biodiversity; establish an annual training course to teach RBA protocols to specialists from ASEAN countries; to establish a species level database using the results of the RBAs; to establish a network of soil biodiversity specialists throughout the ASEAN region; to help build up within ASEAN countries the capacity to meet CBD obligations.

Length of project : May 2000 for three years

Total project cost: £214,769

Darwin funding profile : 2000/2001 £37,036; 2001/2002 £32,101; 2002/2003 £31,496.

Total £100,633

Other sources of funding: £114,136 covering salaries and bench fees at NHM, UMS and FRC. Non-costed resources include use of classroom and seminar facilities at UMS and FRC.

Expenditure profile : see Table A Target outputs : see Table B

Implementation timetable with milestones : see Table C

Key staff inputs: see Table D

Reporting requirements:

| 30 September 2000 | First report (1.4.2000 to 30.9.2000) |
|-------------------|------------------------------------------|
| 30 April 2001 | Annual report (1.4.2000 to 31.3.2001) |
| 30 September 2001 | Six month report (1.4.2001 to 30.9.2001) |
| 30 April 2002 | Annual report (1.4.2001 to 31.3.2002) |
| 30 September 2002 | Six month report (1.4.2002 to 30.9.2002) |
| 30 April 2003 | Annual report (1.4.2002 to 31.3.2003) |
| 30 June 2003 | Final report. |

Arrangements for monitoring trainee outcomes: the ASEAN Regional Centre for Biodiversity Conservation (Dr John MacKinnon) and the Royal Society SE Asia Rain Forest Research Committee (Dr Rory Walsh) will monitor the progress of the work and the trainees.

Table A

| | PROJECT C | OST | | |
|------------------------------|-----------|-----------|-----------|-------|
| Total Darwin Grant: £100,633 | | | | |
| Annual Darwin Grant: | | | | |
| * 2000/2001 £37,036 | | | | |
| * 2001/2002 £32,101 | | | | |
| * 2002/2003 £31,496 | | | | |
| Expenditure details | 2000/2001 | 2001/2002 | 2002/2003 | Total |
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Table B

| PROJECT OUTPUTS | | | | |
|-----------------|--------------|-------------------------------------------------------|--|--|
| Year | | | | |
| 2000/200 | • | | | |
| 1 | 14B | Five day workshop for 6 UK and 5 Malaysian staff. | | |
| May 00 | 15A & B | Press release and media coverage of project launch | | |
| July ? 00 | 18A & C, 19C | in Sabah, organised by UMS and FRC. | | |
| July ? 00 | 8 | Three weeks field work in Sabah by five UK staff. | | |
| July ? 00 | 22 | Eight (?) permanent field plots established. | | |
| July ? 00 | 4C & D | Three Malaysian Darwin Fellows trained for | | |
| July ? 00 | | Three weeks. | | |
| | 14D | Presentation of oral paper and poster at the | | |
| August 00 | | International Congress of Entomology, Brazil. | | |
| _ | 13A | Establish earthworm reference collection at FRC. | | |
| Feb 01 | 13B | Enhance beetle reference collection at FRC. | | |
| Feb 01 | 13B | Enhance termite reference collection at UMS. | | |
| Feb 01 | 13B | Enhance ant reference collection at UMS. | | |
| Feb 01 | | | | |
| 2001/200 | | | | |
| 2 | 14D | Presentation at international conference. | | |
| 2001/02 ? | 17B | Establish Soil Biodiversity specialist group network | | |
| April 01 | | Across the ASEAN region. | | |
| | 8 | Two weeks field work in Sabah by four UK staff. | | |
| May ? 01 | 4C & D | Three Malaysian Darwin Fellows trained for | | |
| May ? 01 | | Two weeks. | | |
| | 14B | Two day workshop for 6 UK and 3 Malaysian staff. | | |
| July ? 01 | 16A | Send out first newsletter to Soil Biodiversity | | |
| August 01 | | Specialist group members in ASEAN. | | |
| | 12A | Set-up species level database at UMS. | | |
| Oct 01 | 11A | Submission of RBA manuscript to journal. | | |
| March 02 | | | | |
| 2002/200 | | | | |
| 3 | 16A | Send out second newsletter to Soil Biodiversity | | |
| June 02 | 1.45 | Specialist group members in ASEAN. | | |
| | 14D | Presentation of oral paper at the IUSSI conference | | |
| July 02 | 11 4 | Japan. | | |
| N 0.02 | 11A | Submission of ecological synthesis paper to journal. | | |
| Nov ? 02 | 10 | Edit and print Darwin Handbook of Soil RBAs. | | |
| Dec 02 | 7 | Prepare teaching material for training course. | | |
| Jan 03 | 6A & B | First annual training course to teach soil RBAs to 28 | | |
| March 03 | 15 A 0- D | ASEAN specialists. | | |
| Monah 02 | 15A & B | Press release and media coverage of RBA training | | |
| March 03 | 18A & C, 19C | Course in Sabah, organised by UMS & ARCBC. | | |

[Please note: The dates for field work, the number of permanent plots to be established, deadlines for identification of specimens, date of manuscript submission to journals, and the date of the training course are all to be finalised during the planning workshop in May 2000. Therefore, this table will be revised after the workshop.]

Table C

| PROJECT IMPLEMENTATION TIMETABLE | | | |
|----------------------------------|------------------------------------------------------------------------|--|--|
| Date | Key Milestones | | |
| 2000/2001 | | | |
| May 00 | Five day workshop for 6 UK and 5 Malaysian staff to plan RBA field | | |
| July ? 00 | Work and project timetable | | |
| July ? 00 | Three weeks field work in Sabah by five UK staff. | | |
| | Three Malaysian Darwin Fellows trained for three weeks in field | | |
| | Sampling techniques. | | |
| Sept ? 00 | Darwin Fellows begin specimen identification. | | |
| Feb 01 | Establish earthworm reference collection at FRC. Enhance beetle | | |
| | Reference collection at FRC. Enhance termite and ant reference | | |
| | Collections at UMS. | | |
| 2001/2002 | | | |
| April 01 | Establish Soil Biodiversity specialist group network in ASEAN region. | | |
| May ? 01 | Two weeks field work in Sabah by four UK staff. | | |
| May ? 01 | Three Malaysian Darwin Fellows trained for two weeks. | | |
| July ? 01 | Five NHM staff start taxonomic quality control on specimens identified | | |
| - | By Darwin Fellows | | |
| July ? 01 | Two day workshop in NHM to review progress, for six UK staff and | | |
| - | Three Malaysian Darwin Fellows. | | |
| Oct 01 | Set-up species level database at UMS. | | |
| March ? 02 | Submission of RBA manuscript to journal. | | |
| 2002/2003 | | | |
| Nov ? 02 | Submission of ecological synthesis paper to journal. | | |
| Jan 03 | Print Darwin Handbook of Soil RBAs. | | |
| March 03 | First annual training course to teach soil RBAs. | | |

Table D

| KEY STAFF INPUTS | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Role in project |
| Dr David Jones | Project leader, consultant on taxonomy and sampling |
| Dr Paul Eggleton | Consultant on taxonomy and sampling |
| Peter Hammond | Consultant on taxonomy and sampling |
| Barry Bolton | Consultant on taxonomy and sampling |
| Dr Frank Krell | Consultant on taxonomy |
| Dr David Bignell | Consultant on sampling |
| Stella Wiseman | Desktop publishing editor |
| Dr Maryati Mohamed | Consultant on taxonomy and sampling |
| Dr Chey Vun Khen | Consultant on taxonomy and sampling |
| Dr Homathevi Rahman | Darwin Fellow |
| Dr Arthur Chung | Darwin Fellow |
| Bakhtiar Yahya | Darwin Fellow |
| eter Hammond arry Bolton or Frank Krell or David Bignell stella Wiseman or Maryati Mohamed or Chey Vun Khen or Homathevi Rahman or Arthur Chung akhtiar Yahya | Consultant on taxonomy and sampling Consultant on taxonomy and sampling Consultant on taxonomy Consultant on sampling Desktop publishing editor Consultant on taxonomy and sampling Consultant on taxonomy and sampling Darwin Fellow Darwin Fellow |

| STAFF TIME ALLOCATIONS | (% | time spent on this world | k) |
|------------------------|----|--------------------------|----|
|------------------------|----|--------------------------|----|

| Name | 2000/2001 | 2001/2002 | 2002/2003 |
|---------------------|-----------|-----------|-----------|
| Dr David Jones | 21 | 21 | 21 |
| Dr Paul Eggleton | 8 | 8 | 8 |
| Peter Hammond | 4 | 4 | 4 |
| Barry Bolton | 2 | 2 | 2 |
| Dr Frank Krell | 17 | 17 | 17 |
| Dr David Bignell | 4 | 4 | 4 |
| Stella Wiseman | | | 4 |
| Dr Maryati Mohamed | 4 | 4 | 4 |
| Dr Homathevi Rahman | 25 | 25 | 25 |
| Dr Bakhtiar Yahya | 25 | 25 | 25 |
| Dr Chey Vun Khen | 4 | 4 | 4 |
| Dr Arthur Chung | 42 | 42 | 42 |