This Supplement deals with the four items found on the [SPECIMEN] tab of ARKS4 which have not already been addressed. (The [STATUS] tab is non-editable, merely displaying the current facts about the specimen, and the [SIRE] and [DAM] tabs were discussed in the Supplement dated May 1, 2002.) Some Sex and Rearing terms are completely new, while Contraception and Management Plan fields have been moved from different locations (menus) in ARKS3.

Sex, Standards p. 79

ARKS4 has two new options available to describe the sex (gender) of a specimen.

1. **Abnormal chromosomal.** Select this designation for specimens whose number of chromosomes differs from the normal number expected for the species and who do not fit into either 'male' or 'female' category. Add a note on this line or on the [NOTES] tab providing full details and explanation.

2. **Hermaphrodite.** Hermaphrodites are individuals which possess both male and female reproductive organs **at the same time.** This definition applies only to limited, specific taxa (mostly invertebrates) but applies to **all** individuals of those taxa.

ARKS4 allows the user to record an additional (new) sex and its start date. The addition of a gender is used **only** when a specimen physically changes gender and should not be used when sex is determined, i.e. a change from 'unknown' to a specific sex. Again, an additional gender entry will usually apply only to limited taxa and should be fully explained in a note.

**Data entry procedure**
- Select the [SPECIMEN] tab.
- Select the [SEX] tab.
- **To edit** an existing gender (a change from ‘unknown’ to known gender or a correction to a previously determined gender):
  - Select the line containing the entry to be edited.
  - Select the <Type> field.
  - Select the new gender from the list.
  - Add a note on this line or in the automatic note created by this edit on the [NOTES] tab to explain the reason for the change, including especially the method by which the gender was determined.
  - Click the “Save” button.
  - If necessary, edit the automatic note created by this edit on the [NOTES] tab to reflect the actual date of the gender determination or correction instead of the default date (which is the date the edit is made). Delete blank lines, if desired.
- **To add** a gender:
  - Click the “Add sex” button; answer “Yes” to the question that the animal did in fact change gender.
  - Supply the date of the change of sex.
  - Select the appropriate gender from the <Type> list.
Add a note on this line or on the [NOTES] tab to explain the reason for the change, including especially the method by which the gender was determined. If the note is placed on the [Notes] tab, use the Sex Modification Log note (code SE).

Click the “Save” button.

**Contraception, Standards p. 79**

The designations for a specimen's contraceptive status have been moved from the <Sex> field of ARKS3 to their own ARKS4 [CONTRACEPTION] tab.

Each contraceptive event requires a two-step process. The first step identifies whether this is a starting or ending event; the second specifies whether it is temporary or permanent.

**Temporary Contraception** is for chemicals such as immunocontraceptives, or devices such as hormone implants which can be reversed, stopped or removed, or have a time-defined effectiveness. **Permanent contraception** is reserved for surgical procedures, such as spaying and castration, which are intended to be irreversible.

The contraceptive events of the specimen appear as individual line entries on the “Sex” portion of the specimen report. On a taxon report, the contraceptive status is displayed adjacent to the sex.

**Data entry procedure**
- Select the [SPECIMEN] tab.
- Select the [CONTRACEPTION] tab.
- Select the "Add Contraception" button.
  - Enter a date for the new event.
  - In the <Type> field, select either 'Contraception Started' or 'Contraception Stopped'. (The latter assumes that there is already a contraception event recorded.)
- Select the "Add Contraception" button again.
  - Enter the same date as above.
  - In the <Type> field, select either 'Temporary Contraception' or 'Permanent Contraception'.
  - Enter as a note on this line the contraceptive method with details of type, location and, if appropriate, the period of effectiveness.
- Enter a note on the [NOTES] tab if desired.

Note: In the event that a 'permanent' contraceptive procedure, e.g. tubal ligation or vasectomy, is actually reversed, another set of entries for “Contraception stopped/ Permanent contraception" would be added and accompanied by an explanatory note.

**Rearing, Standards p. 83**

The two new options in the <Type> field on the [REARING] tab are:

**None**: The offspring has no parental or human input in early development. This is the situation for most reptiles, amphibians, fish and invertebrates. This term is not appropriate for precocial birds like fowl and waterfowl, whose rearing is actually {PARENT}.
As the opportunity presents, those cases in which rearing is actually {NONE} but which have been previously entered as {UNKNOWN} should be changed.

Peer: The Taskforce could determine no use for this category that has not already been defined by the other {REARING} types. Until a specific reason for use is identified and standardized, it is suggested that this option not be used.

Data entry procedure
- Select the [SPECIMEN] tab.
- Select the [REARING] tab.
- If a new method of rearing has begun, select the "Add Rearing" button.
  - Enter a date for the new rearing type.
  - In the <Type> field, select the appropriate rearing term.
  - If rearing type is other than 'parent' or 'none', add a note of explanation.
  - Enter a note on the [NOTES] tab if desired, using the Hand Rearing note (code OH).
- To edit an existing entry:
  - Select the line containing the entry to be changed.
  - In the <Type> field, select the appropriate rearing term.
  - Add a note or edit the existing note explaining the change and include the original rearing type.
  - Enter a note on the [NOTES] tab if desired, using the Hand Rearing note (code OH).

Management Plan, Standards p.117

This information has moved from its position on the Transactions menu of ARKS3. The only use for this option seems to be at the studbook level rather than at the institutional level, and since ISIS indicates that this option has not been used in the North American region, the Taskforce did not address this topic.