NOTES AND NEWS

Leon Kelso would like to remind readers that a major sunspot irruption and magnetic, or geomagnetic, storm series started about 1 August 1972. People keeping detailed bird observations and notes at banding stations might check for any unusual activity possibly associated with the storm series.

The North American Nest-record Card Program at the Cornell Laboratory of Ornithology again requests completed nest-record cards. A special appeal is made for nesting information on the American Robin, Eastern Bluebird, Eastern Phoebe, Red-winged Blackbird, Barn and Tree swallows. Completed cards, additional nesting information, and inquiries should be sent to MRS. EDITH EDGERTON, Cornell Laboratory of Ornithology, 159 Sapsucker Woods Rd., Ithaca, N. Y. 14850.

A North American Hawk Migration Conference will be held at a Holiday Inn near Syracuse, N. Y. on 19-21 April 1974. The purpose of the Conference is to gather under one roof hawk-watchers from all over eastern North America, to exchange observations on hawk migration, to set standards for record-keeping, and to agree on ways of sharing and collating information on a continuing basis. Inquiries on accommodations and transportation may be sent to DOROTHY W. CRUME, 3983 Gates Road North, Jamesville, N. Y. 13078.

In the appraisal of manuscripts submitted recently for publication in *Bird-Banding*, the editor gratefully acknowledges the assistance of the following persons: N. P. Ashmole, J. C. Barlow, F. C. Bellrose, Jr., C. H. Blake, P. Brodkorb, M. H. Clench, H. L. Cogswell, N. E. Collias, D. Forrester, W. G. George, J. P. Hailman, J. W. Hardy, L. C. Holcomb, G. L. Hunt, R. F. Johnston, J. R. King, C. A. Lanciani, W. E. Lanyon, R. C. Leberman, P. B. S. Lissaman, J. P. Ludwig, L. R. Mewaldt, H. C. Mueller, B. G. Murray, Jr., I. C. T. Nisbet, J. Olyphant, R. S. Palmer, R. E. Ricklefs, C. S. Robbins, J. O. L. Roberts, W. B. Robertson, Jr., W. C. Royall, Jr., L. Tuck, V. A. Tucker, L. H. Walkinshaw, G. C. West, J. C. Woodard, and G. E. Woolfenden.

NEBBA MIST NETS

The Northeastern Bird-Banding Association, Inc. imports mist nets from Japan as a service to its members and other netters. Net income has been used to build up the needed working capital, to support *Bird-Banding's* indices, reference tools which don't pay their own way fully, and to support research work. The Manomet Bird Observatory, P.O. Box 0, Manomet, Massachusetts 02345, acts as agent for NEBBA in the mist net business.

as agent for NEBBA in the mist net business. This list replaces all previous lists. As indicated in the Winter 1973 issue (Vol. 44: 80), prices have to be increased because of the devaluation of the dollar relative to the yen. Because the dollar is floating, it may be necessary in the future to adjust prices with each new shipment of nets from Japan. Most nets are in stock for immediate shipment. We have generally been able

Most nets are in stock for immediate shipment. We have generally been able to fill orders promptly, but delays may occur for a variety of reasons, such as strikes, or customs. If you know your needs in advance, an early order may avoid delay in your netting project.

The prices shown include shipment by surface parcel post within the U. S. For shipment by air parcel post, add 10%. If desired, we can ship by parcel post "special delivery" or "special handling", at the actual extra cost. We make every effort to deliver by desired dates, but some requests are unrealistic, even to the point of asking for a date earlier than the day the order reaches us. Requests should keep in mind the limitations of the postal service.

For shipment outside the U. S. by surface parcel post, add 10% (of this 5% is for additional postage and 5% for additional handling, such as preparing customs forms). For shipment outside the U. S. by air parcel post, we charge the actual postage instead of the 10%.

On any shipment outside the U. S., the purchaser (1) arranges any import license or other formalities; (2) pays any customs duties or other charges levied by his country; and (3) should remit in U. S. dollars or in currency freely convertible into U. S. funds at par. If special customs invoice forms have to be filled out, the necessary number of blank copies should be furnished with the order (except for Canada), as we have no quick or convenient way to obtain them here. We regret that we cannot ship by other methods, such as United Parcel or air freight, partly because we have no convenient way for shipments of that sort picked up. Also, the light weight of nets makes parcel post the most economical method in most cases. Note that we do not ship via freight forwarders or consolidators.

Massachusetts customers should allow for the state sales tax (currently 3%), unless exempt for charitable, educational or governmental reasons. Sales are not subject to local sales taxes outside Massachusetts, inasmuch as NEBBA has no premises or operations outside Massachusetts for the sale of nets.

Institutions may order by purchase order, without advance payment (terms: 30 days net, and the cash discount does not apply). Institutions may order by letter instead of purchase order, as long as that method complies with the institution's own internal rules for purchases. If any invoice other than the standard NEBBA form is required, this must be specified at the time of the order, and a set of the forms provided. New members or subscribers may include payment in the same check as for the nets.

DESCRIPTION OF NEBBA MIST NETS

All NEBBA mist nets are black, the best grade we can obtain in Japan. All have nylon mesh and shelfstrings, and those obtained most recently also have nylon shelfloops (except that type KTX is made of tetoron—a polyester—instead).

Туре	Length (meters)	Height (meters)	Shelves	$\mathop{\rm Mesh}\limits_{(\rm mm)}$	Denier	Tethered	Extra-full mesh
ATX	12	2.6	4	36	70	yes	yes
В	6	1.2	2	36	70	no	no
CTX	12	2.6	4	61	110	yes	yes
DTX	6	2.6	4	36	70	yes	yes
\mathbf{E}	12	2 . 4	2	121	210	no	no
ETX	12	2.6	2	121	210	yes	yes
\mathbf{F}	12	2.2	4	24	70	no	no
FTX	12	2.6	4	24	70	yes	yes
G	6	2.2	4	24	70	no	no
GTX	6	2.4	4	24	70	yes	yes
HTX	12	2.6	4	30	70	yes	yes
J	6	2.4	4	30	70	no	no
JTX	6	2.6	4	30	70	yes	yes
KTX	12	2.6	4	36	75	yes	yes

Meter: about 39". 12 meters = about 41' between poles. 2.4 m = about 7' as set. Millimeter (mm): 25 mm = about one inch; 36 mm = about $1 \frac{1}{2''}$.

Height: as designated by the manufacturer (the user can vary the height of the top shelfstring from the ground somewhat, and must allow some slack in order to form shelf pockets).

Mesh: figures are "stretched" (on 36 mm, the unstretched side of the square of mesh is about 3/4'').

Denier: weight of thread (lower numbers show a lighter thread). All yarn is twoply, except 210 denier which is four-ply.

Net type	1	2	3	4	5	6	(7)	8
ATX	\$ 8.00	1.00	. 30	. 30	7.00	6.70	6.40	7.70
В	2.40	. 30	. 10	. 10	2.10	2.00	1.90	2.30
CTX	8.85	1.00	. 30	. 30	7.85	7.55	7.25	8.55
DTX	4.80	. 50	. 20	. 20	4.30	4.10	3.90	4.60
\mathbf{E}	6.05	.80	.25	.25	5.25	5.00	4.75	5.80
ETX	9.35	1.00	. 30	.30	8.35	8.05	7.75	9.05
\mathbf{F}	6.15	. 80	.25	.25	5.35	5.10	4.85	5.90
FTX	10.60	1.00	. 30	. 30	9.60	9.30	9.00	10.30
G	3.55	. 40	.15	.15	3.15	3.00	2.85	3.40
GTX	5.85	. 50	.20	.20	5.35	5.15	4.95	5.65
HTX	10.30	1.00	. 30	. 30	9.30	9.00	8.70	10.00
J	3.35	.40	.15	. 15	2.95	2.80	2.65	3.20
JTX	5.55	. 50	.20	. 20	5.05	4.85	4.65	5.35
KTX	8.50	1.00	. 30	. 30	7.50	7.20	6.90	8.20

PRICES OF NEBBA MIST NETS

EXPLANATION OF COLUMN HEADINGS

- 1. Base price.
- 2. Discount if purchaser member of NEBBA or subscribes to Bird-Banding.
- 3. Cash discount (check or money order with net order).
- 4. Quantity discount (10 or more nets, one type or mixed types, shipped at one time to one address, not more than one invoice sent). Cash orders only.
- 5. Price, cols. 1 & 2 (member/subscriber, not cash or quantity discounts).
- 6. Price, cols. 1, 2, & 3 (member/subscriber, and cash, not quantity discount).
- 7. Price, cols. 1 through 4 (all discounts).
- 8. Price, cols. 1 & 3 (cash, not member/subscriber or quantity discounts).

Permits to band birds in the U. S. or Canada do not authorize the use of nets unless the permit is specifically endorsed.

Please show the applicable permit number on every order. Institutions ordering by purchase order should always show the individual who will be responsible for use of the nets.

NEBBA sells nets only for scientific purposes, to individuals or institutions that appear qualified to use them. We will decline sales to anyone whose qualifications appear inadequate or unproven. Nets will not be sold for purposes such as control of the numbers of birds, or for commercial collecting.

Control of the numbers of birds, or for commercial collecting. Only tethered, extra-full mesh nets (TX) are currently being ordered from Japan. Existing stocks of types B, E, F, G and J are being offered as long as available in inventory at prices which were set before the devaluation of the dollar.

CHOICE OF MIST NET TYPES

While the choice of types is a matter of personal preference to some extent, some general guides may be outlined. First, determine the best size of mesh for your purposes, depending on the

First, determine the best size of mesh for your purposes, depending on the species to be captured. No one size of mesh can be efficient for all sizes of birds; outside the proper range of size, the net may be inefficient or tangled, or the bird may damage the net.

- 24 mm: specialty size, for kinglets, small titmice, or the smallest wood warblers.
- 30 mm: recommended for wood warblers in general. The line of peak efficiency between this and 36 mm falls between birds taking U. S. band size 1 or less (30 mm) and those taking size 1B or larger (36 mm). See "The Comparative Efficiency of 30 and 36 mm Mesh in Mist Nets," by Mary A. Heimerdinger and Robert C. Leberman, *Bird-Banding*, **37**(4): 280-285, 1966.
- 36 mm: the general-purpose size for small birds (see discussion above under 30 mm).
- 61 mm: the largest thrushes, doves, woodcock, grackles, medium-sized shorebirds.
- 121 mm: grouse, large shorebirds, small to medium-sized ducks and hawks.

Next, consider net length. Use 12 meter types if you have the space, and 6 meter generally only where space is limited.

Finally, consider tethering (if NEBBA carries both tethered and untethered). This means that the top edge has an extra shelfstring, tied to the regular shelfstring and the mesh itself about every 10". This edge is marked by white shelfloops. All our tethered nets now have extra-full mesh: vertically, as shown in the list, and also about 10% more horizontally. By comparison, Type A had about 150 meshes vertically. Tethering permits use under somewhat more windy conditions, though not in high winds, rain, or cold.

Unless you are deliberately preparing for different conditions, your choice of mesh should be consistent in different net lengths. For example, if you are ordering primarily type ATX, any 6 meter net ordered should be DTX, not GTX or JTX.

Net orders or inquiries should be directed to: Mist Nets, Manomet Bird Observatory, P. O. Box 0, Manomet, Mass. 02345, U. S. A.