

COORDINATES  
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To indicate accurately the position of a place on the surface of the earth, the globe is covered with a network of imaginary lines. Those running east and west are called parallels and the distance between them is measured in degrees of latitude. Those running north and south are called meridians and the distance between them is measured in degrees of longitude.

In numbering parallels we start with the Equator as zero and count north or south. Since the distance from the Equator to either of the poles is one quarter of a circle around the earth, we measure latitude from zero to 90 degrees. In banding records north latitude is assumed unless otherwise specified. A degree of latitude measured from the Equator to the first parallel is about 68 3/4 miles. At 45 degrees it is a little more than 69 miles as the earth is not a perfect sphere.

In numbering the meridians most countries by agreement have chosen as the starting point the meridian passing through Greenwich, England, where the British Royal Observatory is established. Beginning with this as zero, the first degree east of Greenwich is called one degree east longitude and the first degree west of Greenwich is called one degree west longitude. As meridians cover the entire globe, we have 180 degrees east and 180 degrees west. In banding west longitude is assumed unless indicated otherwise. A degree of longitude measured on the Equator is a little more than 69 miles. This distance decreases until at 30 degrees it is a little less than 60 miles, at 60 degrees about 34 1/2 miles, and zero at the poles.

Degrees of latitude and longitude are subdivided in minutes and seconds. One degree contains 60 minutes and one minute 60 seconds. In banding we work with 10 minute grids which means an area 10 minutes or 1/6 of a degree on each side.

Recently we received a recovery on an IBM card which indicated the Starling was banded on January 1958 in New Jersey at 39°20' and 075°10'. We immediately pulled out an ESSO road map of New Jersey which has marked on it coordinates at 10 minute grids as shown on the map at the right. We then drew an "X" where the 39° 20' latitude and the 75° 10' longitude lines cross. As the reference point for each grid is always the lower right corner, we know the bird was banded in the grid containing Bridgeton.

Next we checked the membership roll in EBBA NEWS and found the names of two banders from Bridgeton. If further information was required I'm sure a letter would put me on the trail of the right bander. After this year the bander's name will be written on the back of the IBM card.

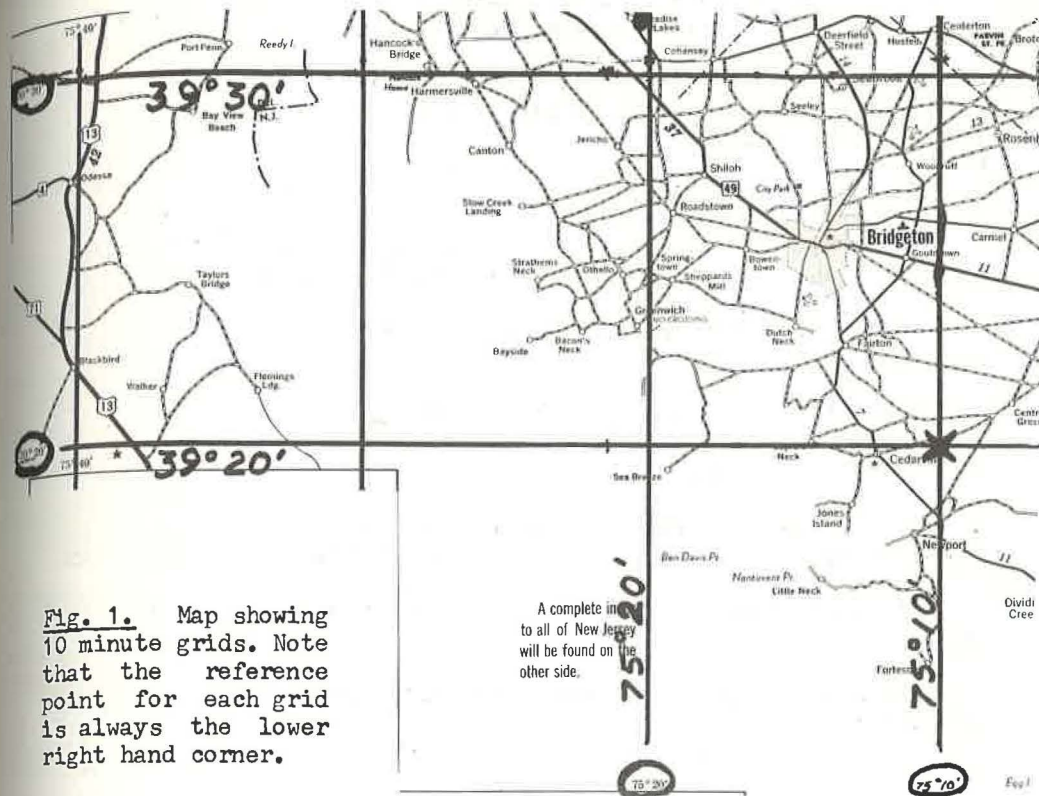


Fig. 1. Map showing 10 minute grids. Note that the reference point for each grid is always the lower right hand corner.

Now suppose you are a new bander living in Bridgeton and want to know what your coordinates are. First get a map which shows coordinates on it. Draw a line along the first 10 minute latitude below your town and along the first 10 minute longitude east of you. Where they cross is the designation of your grid. It is necessary to code these coordinates for punching on IBM cards. The 39° 20' is changed to 392 by dropping off the zero. The 75° 10' is changed to 0751 by also dropping off the zero and adding a zero before the 75 when this number is less than 100 degrees.

Coordinates can be obtained for any part of the earth by reference to an Atlas. The banding office is also considering issuing a map of the United States showing degrees of latitude and longitude.

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