

## Monthly Precipitation History at Seney National Wildlife Refuge (NWR) (1939-2015)

### Methods

Precipitation data from 1935 – February 1939 is unavailable, as Seney National Wildlife Refuge’s Annual Narratives do not include monthly precipitation totals until March 1939.

Monthly precipitation totals for March 1939 – November 2000 were retrieved from the National Oceanic and Atmospheric Administration (NOAA)’s National Centers for Environmental Information’s Climate Data Online Search Engine (<http://www.ncdc.noaa.gov/cdo-web/search>). Annual climatological summaries were selected from the “Select Weather Observation Type/Dataset”. After selecting dates that covered the history of the Refuge (1935 to 2015), a search for the Seney NWR station was made. On the “Annual Summaries Station Details” page, precipitation data was selected from the list of available data types. The available data was then requested by clicking the “Add to Cart” option. An email containing a link to the requested .pdf file of the annual climatological summaries for the Seney NWR station was received 12-24 hours later. An Excel file was created with separate spreadsheets for each decade. The data were then entered into the appropriate Excel spreadsheets.

The precipitation data from March 1939-November 2000 were collected at Seney NWR (N 46.28333 W-85.98333). All precipitation was recorded in inches and represents the total amount of precipitation collected monthly. An “X” after the precipitation total indicates that the monthly total is based on an incomplete time series where 1 to 9 days of data are missing or were not recorded. Monthly totals followed by an “E” represent an estimated total.

In December 2000, Seney National Wildlife Refuge began recording precipitation data through the National Atmospheric Deposition Program (NADP). Precipitation data were collected at the Seney NWR Headquarters. Data from December 2000 – May 2015 were retrieved from the NADP website (<http://nadp.isws.illinois.edu>). After navigating to the home page and the “Maps & Data” tab, “NTN Data” was selected. From there, the “Site List” was clicked and M48-Seney National Wildlife Refuge-Headquarters was chosen. After selecting the “Data” tab, the monthly data option was clicked. Monthly precipitation totals were viewed by year to limit errors in data entry. Additional selections included choosing “Precipitation-weighted Means (mg/L)” as the “Type of Data” provided and clicking the “Get Data” button.

The NADP website states that the total precipitation provided is the “total amount of precipitation, in centimeters, measured by the rain gage during the summary period. This value includes precipitation amounts calculated from the sample volumes in cases where the weekly rain gage measurements were unavailable”. Monthly precipitation totals were entered into the appropriate spreadsheet and were converted from centimeters to inches by multiplying the totals by 0.393701.

For more information, please contact:

Dawn Marsh  
Email: [dawnsmarsh@gmail.com](mailto:dawnsmarsh@gmail.com)  
Phone: (616) 799-3394

R. Gregory Corace III, Ph.D.  
Applied Sciences Program  
Seney National Wildlife Refuge  
1674 Refuge Entrance Rd.  
Seney, MI 49883  
Email: [Greg\\_Corace@fws.gov](mailto:Greg_Corace@fws.gov)  
Phone:  [\(906\) 586.9851 ext. 14](tel:(906)586.9851)