

**MANITOBA CHIMNEY SWIFT INITIATIVE (MCSI)  
QUICK REFERENCE GUIDE FOR MONITORING CHIMNEY SWIFTS**

**Record** entries ( ↓ ) and exits ( ↑ ) of Chimney Swifts (CHSW) at a nest or roost site.

Approximate dates for events may vary: A) Nest vs. Roost site; B) Southern to Northern MB; C) Weather patterns

<b>Events</b>	<b>Dates at St. Adolphe (southern nest sites)</b>	<b>Dates at Dauphin (northern roost site)</b>
Arrive	~ May 11 - 26 Late arrivals & local birds redistributing: ~ June 1 - 20	Peak ~ May 30 Redistribution & decline in numbers (move to other sites) until ~ June 30
Nest building to egg-laying	~ May 16 - June 20	
Incubation	~ June 3 - 28 if pair started nest building by June 1; otherwise later dates	
Feed brooded juveniles	~ July 1 - 16	
Feed non-brooded juveniles	~ July 7 - 22	
Fledge	~ July 27 - August 16	
Pre-migration: local redistribution among sites	~ July 31 - August 16	Peak ~ August 6
Migration: departure to south	~ August 11 - September 4	All gone by ~ August 18

**Monitoring / Observation Periods**

**Roosting Hour (R)**

- 1/2 before local sunset to 1/2 hour after local sunset
- best for estimating abundance at roost site throughout monitoring season

**Daytime (D)**

- any period not in R
- best for estimating stage of nesting at nest site
- birds may be less active in heat of the day

**Combined Daytime/Roosting (C)**

- at least 1 h before to 1/2 h after local sunset
- best for estimating abundance from fledging through migration at nest sites

For detailed information visit: the MCSI site at <http://www.naturemanitoba.ca/CHSW.html> ; and the Manitoba Breeding Bird Atlas at <http://www.birdatlas.mb.ca>

STAGE OF NESTING	OBS. TIME	BEHAVIOUR	COMMENTS and entry/exit pattern examples
<b>Arrival</b>	R	<ul style="list-style-type: none"> <li>• CHSW arrive at breeding grounds</li> <li>• breeding pairs select nest site</li> </ul>	<ul style="list-style-type: none"> <li>• not occupied if 3 consecutive roosting periods have no birds</li> <li>• if exit is seen, start daytime observations to confirm nest building</li> </ul> <p>↓...↓</p>
<b>Nest Building &amp; Egg Laying</b>	D&R	<ul style="list-style-type: none"> <li>• twigs collected &amp; glued with saliva onto inside of chimney</li> <li>• ~ 2-5 eggs laid</li> </ul>	<ul style="list-style-type: none"> <li>• exits in daytime indicate nest building is underway</li> </ul> <p>↓...↓___↑_._↑ or ↓___↑___↓</p>
<b>Incubation</b> for 18-21 d	D&C	<ul style="list-style-type: none"> <li>• parents take turns incubating eggs</li> <li>• exchange ~ 1-2 x / hr</li> </ul>	<ul style="list-style-type: none"> <li>• exchange times usually quick ~ 30 sec.</li> <li>• brief unattended periods (↑↑ then ↓↓) usually at dusk</li> </ul> <p>↓_↑___↓_↑</p>
<b>Feeding Brooded</b> Hatch = Day 1 to Day 6-7	D&C	<ul style="list-style-type: none"> <li>• juveniles hatch</li> <li>• fed ~ 2 x / hr</li> <li>• adults take turns feeding &amp; covering (brooding) young</li> </ul>	<ul style="list-style-type: none"> <li>• exchange times usually short ~1 min.</li> <li>• ↓↑ &amp; ↑↓ more frequent than in Incubation &amp; rate increases through stage</li> <li>• brief unattended periods usually at dusk</li> </ul> <p>↓_↑___↓_↑</p>
<b>Feeding Non-Brooded</b> Day 6-7 to Day 28-30	D&C	<ul style="list-style-type: none"> <li>• juveniles fed ~4 x / hr</li> <li>• both adults may leave chimney to collect food</li> </ul>	<ul style="list-style-type: none"> <li>• birds from nearby sites may swoop low over the chimney top to view newly revealed hatchlings</li> <li>• juveniles can keep warm by themselves &amp; unattended periods increase through stage e.g., 2 min. to 18 min.</li> <li>• variable patterns of use (both adults out of chimney)</li> <li>• ↓↑ &amp; ↑↓ frequency may rise sharply just before fledging e.g., 8 entries/exits per hour</li> </ul> <p>↓_↑___↓_↑ (partner exchange)  ↓___↑___↓___↑ (same bird), or  ↓...↓___↑_._↑ (both adults)</p>
<b>Fledging</b> Day 28-30	D&C	<ul style="list-style-type: none"> <li>• juveniles fly out of chimney for first time</li> </ul>	<ul style="list-style-type: none"> <li>• fledglings: rapid wing beats but slow flight speed; fly low; have smooth wing edges (not moulting)</li> <li>• monitor same evening that fledglings first observed in daytime</li> <li>• fledging may be delayed by bad weather</li> <li>• daytime use wanes 7 - 10 days post-fledging</li> </ul> <p>↓_↑___↓_↓_↑_._↑↑_↓_↓</p>
<b>Pre-Migration</b>	C	<ul style="list-style-type: none"> <li>• local CHSW may redistribute among sites</li> </ul>	<ul style="list-style-type: none"> <li>• birds arrive in groups or alone</li> <li>• variable daily pattern</li> </ul> <p>↑_↓_↓_↓_↑_↑_↓_↓_↓</p>
<b>Migration</b>	C	<ul style="list-style-type: none"> <li>• CHSW group together &amp; fly south to wintering grounds</li> </ul>	<ul style="list-style-type: none"> <li>• locals birds group, joined by migrants</li> <li>• numbers peak then decline to zero</li> <li>• variable patterns between years</li> </ul> <p>↓...↓.....↓↓...↓↓↓.↓</p>