| Spring Arrival Dates 2007 Waterbirds |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Species | Region 1 | Region 2 | Region 3 | Region 4 | Region 5 | Region 6 | Region 7 | Region 8 | Region 9 | Region 10 | Average | 21-Yr. Ave |
| American Bittern | 1 Apr | 1 Apr | 1 Apr |  | 5 Apr | 21 Apr | 20 Apr | 20 Apr | 22 Apr |  | 11 Apr | 15 Apr |
| Green Heron | 15 Apr | 28 Apr | 22 Apr |  | 22 Apr | 6 May | 8 May | 27 Apr | 24 Apr | 14 Apr | 25 Apr | 22 Apr |
| Wood Duck | 14 Mar | 22 Mar | 3 Mar |  | 14 Mar | 16 Mar | 21 Mar | 18 Apr | 13 Mar |  | 19 Mar | 13 Mar |
| Green-winged Teal | 10 Mar | 12 Mar | 3 Mar |  | 22 Mar | 29 Mar | 19 Mar | 3 Apr |  |  | 18 Mar | 17 Mar |
| Northern Pintail | 7 Mar | 9 Mar | 3 Mar |  | 13 Mar |  | 14 Mar | 14 Mar |  |  | 10 Mar | 7 Mar |
| Blue-winged Teal | 19 Mar | 16 Mar | 24 Mar |  | 15 Mar | 17 Apr | 24 Mar | 1 Apr | 12 Apr | 3 Mar | 24 Mar | 29 Mar |
| Osprey | 24 Mar | 26 Mar | 23 Mar |  | 19 Mar | 2 Apr | 22 Mar | 3 Apr | 30 Mar | 3 Mar | 23 Mar | 28 Mar |
| Virginia Rail | 6 Apr | 29 Apr | 13 Apr |  | 11 Apr | 4 May | 6 May | 1 Apr | 13 Apr |  | 17 Apr | 19 Apr |
| Sora | 15 Apr | 22 Apr | 25 Apr |  | 23 Apr |  | 19 May | 23 Apr | 4 May | 14 Apr | 25 Apr | 29 Apr |
| Common Moorhen | 7 Apr | 29 Apr | 21 Apr |  | 14 Apr |  | 6 May | 27 Apr |  | 21 Apr | 22 Apr | 26 Apr |
| Black-bellied Plover | 18 May | 26 Apr | 14 Apr |  | 23 May |  | 14 May |  |  |  | 7 May | 12 May |
| Semipalmated Plover | 3 May | 4 May | 11 May |  | 13 May |  | 9 May | 18 May | 15 May | 28 Apr | 8 May | 10 May |
| Killdeer | 28 Feb | 10 Mar | 3 Mar |  | 3 Mar | 25 Mar | 21 Mar | 15 Mar |  |  | 11 Mar | 5 Mar |
| Greater Yellowlegs | 28 Mar | 23 Mar | 13 Mar |  | 10 Apr | 7 Apr | 20 Apr | 14 Apr | 1 Apr |  | 2 Apr | 7 Apr |
| Lesser Yellowlegs | 29 Mar | 12 Apr | 21 Apr |  | 8 Apr | 17 Apr | 24 Apr | 1 May | 10 Apr | 15 Mar | 11 Apr | 18 Apr |
| Solitary Sandpiper | 22 Apr | 21 Apr | 28 Apr |  | 26 Apr | 6 May | 4 May | 25 Apr | 11 Apr | 16 Apr | 24 Apr | 26 Apr |
| Spotted Sandpiper | 15 Apr | 23 Apr | 22 Apr |  | 29 Apr | 8 May | 28 Apr | 29 Apr | 28 Apr | 21 Apr | 25 Apr | 24 Apr |
| Sanderling |  |  |  |  | 26 May |  |  |  |  |  | 26 May | 17 May |
| Semipalmated Sandpiper | 6 May | 3 May |  |  | 19 May |  | 9 May | 19 May | 15 May | 28 Apr | 9 May | 13 May |
| Least Sandpiper | 25 Apr | 22 Apr | 28 Apr |  | 26 Apr |  | 9 May | 12 May | 28 Apr | 18 Apr | 28 Apr | 4 May |
| Pectoral Sandpiper | 30 Mar | 12 Mar | 29 Apr |  | 10 Apr |  |  |  |  | 31 Mar | 3 Apr | 21 Apr |
| Wilson's Snipe | 28 Mar | 24 Mar | 29 Mar |  | 29 Mar | 2 Apr | 3 Apr | 15 Mar | 29 Mar |  | 27 Mar | 23 Mar |
| American Woodcock | 13 Mar | 11 Mar | 7 Mar |  | 25 Feb | 20 Mar | 23 Mar | 14 Apr | 23 Feb | 3 Mar | 12 Mar | 11 Mar |
| Caspian Tern | 31 Mar | 2 Apr | 7 Apr |  | 7 Apr | 10 Apr | 9 May | 29 Apr |  | 13 May | 17 Apr | 22 Apr |
| Common Tern | 8 Apr | 12 Apr | 7 Apr |  | 23 Apr | 2 May | 9 May |  | 4 May | 20 Apr | 21 Apr | 27 Apr |
| Black Tern | 3 May | 9 May | 3 May |  | 17 May | 4 May | 9 May | 2 May |  | 12 May | 7 May | 8 May |
| Marsh Wren | 28 Apr | 28 Mar | 13 May |  | 30 Apr |  | 14 May | 24 Apr | 3 May | 21 Apr | 27 Apr | 1 May |
|  | Dates in b | bold type a | are record | early arriv | vals for the | Region. |  |  |  |  |  |  |


| Spring Arrival Dates 2007 Landbirds |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Species | Region 1 | Region 2 | Region 3 | Region 4 | Region 5 | Region 6 | Region 7 | Region 8 | Region 9 | Region 10 | Average | 21-Yr. Ave |
| Black-billed Cuckoo | 9 May | 9 May | 13 May |  | 10 May | 10 May | 14 May | 10 May | 19 May | 18 Apr | 9 May | 12 May |
| Common Nighthawk | 11 May | 8 May | 11 May |  | 19 May |  | 18 May | 19 May | 22 May | 29 Apr | 13 May | 12 May |
| Chimney Swift | 22 Apr | 22 Apr | 21 Apr |  | 22 Apr | 3 May | 17 May | 29 Apr | 29 Apr | 23 Apr | 27 Apr | 25 Apr |
| Ruby-thr Hummingbird | 2 May | 29 Apr | 4 May |  | 1 May | 10 May | 2 May | 1 May | 29 Apr | 16 Apr | 30 Apr | 3 May |
| Yellow-bellied Sapsucker | 23 Mar | 29 Mar | 30 Mar |  | 2 Apr | 5 Apr | 24 Mar | 4 Apr |  |  | 30 Mar | 3 Apr |
| Olive-sided Flycatcher | 17 May | 27 May | 17 May |  | 28 May | 26 May | 20 May | 19 May | 13 May | 12 May | 19 May | 18 May |
| Eastern Wood-Pewee | 9 May | 11 May | 6 May |  | 12 May | 19 May | 1 May | 30 Apr | 14 May | 20 Apr | 6 May | 9 May |
| Alder Flycatcher | 17 May | 5 May | 12 May |  | 12 May | 20 May | 17 May | 15 May | 15 May | 30 May | 15 May | 17 May |
| Willow Flycatcher | 9 May | 11 May | 16 May |  | 14 May | 20 May | 19 May | 12 May | 12 May | 11 May | 13 May | 16 May |
| Least Flycatcher | 27 Apr | 4 May | 24 Apr |  | 1 May | 4 May | 7 May | 30 Apr | 30 Apr | 28 Apr | 30 Apr | 2 May |
| Eastern Phoebe | 17 Mar | 20 Mar | 22 Mar |  | 14 Mar | 29 Mar | 26 Mar | 5 May | 14 Mar | 3 Mar | 23 Mar | 22 Mar |
| Gr. Crested Flycatcher | 1 May | 27 Apr | 28 Apr |  | 1 May | 4 May | 10 May | 5 May | 2 May | 28 Apr | 1 May | 1 May |
| Eastern Kingbird | 27 Apr | 29 Apr | 23 Apr |  | 1 May | 4 May | 5 May | 29 Apr | 28 Apr | 17 Apr | 28 Apr | 28 Apr |
| Purple Martin | 3 Apr | 23 Mar | 21 Apr |  | 21 Apr | 22 Apr | 10 May | 19 May | 25 Apr | 18 Apr | 21 Apr | 17 Apr |
| Tree Swallow | 15 Mar | 10 Mar | 14 Mar |  | 13 Mar | 24 Mar | 15 Mar | 26 Feb | 12 Mar | 3 Mar | 11 Mar | 21 Mar |
| N. Rough-winged Swallow | 15 Apr | 1 Apr | 4 Apr |  | 21 Apr | 2 May | 27 Apr | 23 Apr | 1 Apr | 3 Apr | 14 Apr | 15 Apr |
| Bank Swallow | 25 Apr | 21 Apr | 24 Apr |  | 26 Apr | 26 Apr | 11 May | 22 Apr | 27 Apr | 16 Apr | 25 Apr | 25 Apr |
| Cliff Swallow | 25 Apr | 12 Apr | 24 Apr |  | 24 Apr | 5 May | 10 May | 12 May | 5 May | 28 Apr | 29 Apr | 27 Apr |
| Barn Swallow | 15 May | 1 Apr | 2 Apr |  | 1 Apr | 20 Apr | 22 Apr | 22 Apr | 14 Apr | 16 Apr | 15 Apr | 11 Apr |
| House Wren | 26 Apr | 21 Apr | 22 Apr |  | 25 Apr | 27 Apr | 30 Apr | 24 Apr | 28 Apr | 23 Apr | 25 Apr | 22 Apr |
| Ruby-crowned Kinglet | 5 Apr | 8 Apr | 28 Mar |  | 8 Apr | 3 Apr | 23 Apr. | 3 Apr |  | 13 Mar | 3 Apr | 6 Apr |
| Blue-gray Gnatcatcher | 22 Apr | 23 Apr | 23 Apr |  | 22 Apr |  | 1 May | 27 Apr | 18 Apr | 14 Apr | 22 Apr | 21 Apr |
| Eastern Bluebird |  | 3 Mar |  |  | 12 Mar | 2 Apr | 20 Mar |  |  |  | 17 Mar | 9 Mar |
| Veery | 29 Apr | 3 May | 28 Apr |  | 7 May | 10 May | 11 May | 8 May | 2 May | 24 Apr | 3 May | 2 May |
| Swainson's Thrush | 5 May | 7 May | 7 May |  | 11 May |  | 15 May | 12 May | 5 May | 2 May | 8 May | 8 May |
| Hermit Thrush | 27 Mar | 31 Mar | 31 Mar |  | 29 Mar | 6 Apr | 7 Apr | 10 May |  | 25 Mar | 5 Apr | 7 Apr |
| Wood Thrush | 28 Apr | 27 Apr | 28 Apr |  | 2 May | 6 May | 10 May | 29 Apr | 29 Apr | 22 Apr | 30 Apr | 29 Apr |
| Gray Catbird | 21 Apr | 20 Apr | 22 Apr |  | 2 May | 9 May | 1 May | 26 Apr | 20 Apr | 21 Apr | 25 Apr | 25 Apr |
| Brown Thrasher | 26 Mar | 4 Apr | 18 Apr |  | 23 Apr | 23 Apr | 21 Apr | 19 Apr | 24 Apr | 17 Apr | 16 Apr | 16 Apr |
| Blue-headed Vireo | 23 Apr | 22 Apr | 21 Apr |  | 23 Apr | 25 Apr | 26 Apr | 24 Apr | 22 Apr | 21 Apr | 23 Apr | 20 Apr |
| Yellow-throated Vireo | 11 May | 5 May | 24 Apr |  | 1 May | 8 May | 17 May | 28 Apr | 28 Apr | 23 Apr | 2 May | 4 May |
| Warbling Vireo | 28 Apr | 29 Apr | 26 Apr |  | 28 Apr | 4 May | 23 Apr | 24 Apr | 25 Apr | 24 Apr | 26 Apr | 1 May |
| Red-eyed Vireo | 3 May | 5 May | 30 Apr ] |  | 7 May | 10 May | 9 May | 10 May | 2 May | 19 Apr | 3 May | 4 May |
| Dates in bold type are record early arrivals for the Region. |  |  |  |  |  |  |  |  |  |  |  |  |


|  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Id $\forall \varepsilon \mathcal{L}$ | i．${ }^{\text {a }}$ | ${ }^{\text {Id }} \vee{ }^{\text {V }}$ LI | IdV £ | IdV97 | IdV 8 z | xdv 82 | Idv てz |  | IdV 61 | IdV 8I | iş ${ }^{\text {\％}}$ |  |
| Id $\forall 0 \varepsilon$ | Id $V 62$ | IdV 91 | IdV 82 | KeW $\dagger$ | KeW E | Ken S | KEW ${ }^{\text {b }}$ |  | IdV IZ | Kew I | Jd V 0 E |  |
| SEN Z | KEW \＆ | KeW Z |  | KeW E | KeW 8 | KEN $\dagger$ | KeW $\dagger$ |  | KeW $\dagger$ | $\mathrm{dd} \vee$ 0 | SEN ${ }^{\text {d }}$ | Yu！joq0g |
| Id $V$ SZ | Idv $\downarrow$ I | IdV $\dagger$ I | IeSN 8I | JEW I | KEW I | KEN 9 | IdV LZ |  | ${ }^{\prime} d V / I I$ |  | $\xrightarrow{\text { d }}$ V 62 |  |
| KeW t | KeN I | IdV 0Z | IdV II |  | Kew \＆l | KbN 9 | Kew $L$ |  | IdV 87 | Krı $Z$ | KEW $\dagger$ | Moneds s，ulouul |
| Id P 8 | IdV $\downarrow$ | IRW $\angle Z$ |  | － d V V $て \mathrm{Z}$ | IdV ${ }^{\text {d }}$ | IdV II | IEN 92 |  | IEW $\angle Z$ | IdV8 | IEN IE | moineds Yeuubaes |
| IdV II | Id $V 8$ | IdV8 | IdV ZI | Idv てZ | IdV 0Z | Idv $\boldsymbol{\square}$ | $\xrightarrow{\text { Id }} \mathrm{V}$ I |  | IEW 62 | IdV 8 | IdV I | MonutedS Jadsa $\Lambda$ |
| IdV S | IEW 67 | IEW SZ | LEW $\downarrow$ て | IEW 0E | IEW LZ | IdV IZ | IdV $\mathcal{I}$ |  | IEN LI | IPW 82 | IEW 9Z | Mo．ards 8updd！uว |
| IdV 01 | ${ }^{1} \mathrm{~d} V \mathrm{~L}$ | ddvti |  | $\stackrel{\text { Idv }}{\text { VZ }}$ | IdV 87 | Id $\vee$ E | Id $\downarrow$ \＆ |  | IEN IZ | ${ }^{1 d} \downarrow$ L | IEN ¢ |  |
| KrW ${ }^{\text {d }}$ | IdV0E | IdV91 | Kew E | IdV LZ | KrW 0I | Kew 8 | KEN Z |  | Idv $0 \varepsilon$ | KeW S | IdV 9Z | supung os！pul |
| Id $\forall 88$ | Id $\forall \downarrow$ ¢ | $\mathrm{Id} v \mathrm{t} \boldsymbol{I}$ | Idv 8Z | $\stackrel{\text { Id }}{*}$ LI | Kew 2 | KeW S | IdV 6Z |  |  | IdV V \％ | IdV $\dagger$ \％ | Yeaqso．19 pąser．iq－asoy |
| KEN $\dagger$ | KEW ${ }^{\text {¢ }}$ | IdV91 | Kew S | Kew L | Kew 01 | KeW 6 | ǨW 9 |  | Kew S | KEW L | Kew 8 |  |
| KEN II | Kew II | KeW Z | Kew ZI | Kew 0I | Kew 0Z | KeW 61 | Kew 8 |  | Kew 6 | Kew 8 | KEW EI |  |
| Kew II | KeW 8 | Kew Z | KeW 9 | Kew OI | KEW ZI | Kew LI | Kew 8 |  | KEN L | Kew 6 | Kew 6 | JPquten Stuosl！M |
| Id $\forall$ OE | $\mathrm{Kr}_{\mathrm{K}} \mathrm{l}$ | Id $V$ ¢Z | IdV 87 | KEW L | KeW II | KeW t | Kew 2 |  | KEW \＆ | $\xrightarrow{\text { d }} \boldsymbol{\forall}$ LZ |  |  |
| Kew SI | Kew SI | Kew SI | Kew ZI | KとN 8Z | Ken II | KEN ZZ | Kew 0I |  | KeW 9］ | KrN 6 | Kew 9］ |  |
| Id $\vee 97$ | Idv 9Z | IdV IZ | IdV ¢ ${ }^{\text {d }}$ | IdV6Z | KeW ${ }^{\text {b }}$ | Keju | IdV IZ |  | $1 \mathrm{~d} \forall$ \＆ | Idv zz | Kew S |  |
| IdV 0 ¢ | KrW I | IdV $\downarrow$ ¢ | IdV 8Z | Ken I | KEW 8 | Kej L | IdV 82 |  | IdV $0 \varepsilon$ | KeN $\dagger$ | KeW $\dagger$ | р．！¢чиал |
| KrW E | KeW Z | IdV \＆ | IdV 0ع | Kew E | Sew II | Kew 8 | Kew 2 |  | Id $V 8 \mathrm{C}$ | Kew S | KEN 9 | 7nepspay urojuruv |
| IdV $¢$ ¢ | Id $\downarrow$ \＆ | IdV IZ | IEW EZ | Kew Z | IdV $0 \mathcal{L}$ | IdV 62 | $\stackrel{\text { Id }}{ } \boldsymbol{\sim}$ |  | IdV \＆Z | ${ }^{1 d} \boldsymbol{V}$ LZ | Idv LZ |  |
| KeW ZI | Kew II | Kew I | Kew 8 | Kew ZI | Ked 9I | KEN \＆Z | Kew ZI |  | KEN 01 | KeW ZI | KeW 01 |  |
| KEW 0I | Kew 01 | Kew 9 | Kew ZI | Kew ZI | KEL 0I | KEN 8I | KEW 8 |  | KeW 01 | Kry L | Kew $L$ |  |
| IdV 8I | Id $V$ \＆ | IEN $\angle Z$ | Idv $\downarrow$ I | $\stackrel{\text { Id } V \text { SZ }}{ }$ | ddV L |  | Id $V$ をZ |  | IdV 9 | Id V 2 Z | $\mathrm{Id} \vee \mathcal{L I}$ |  |
| rdv II |  | IEW EZ | IEW LZ | Idv $\dagger$ | ${ }^{\text {adv }}$ てZ | adv zz | IdV6 |  | IdV E | IdV S | IEN IE | ．jpqse $M$ วu！d |
| KeW E | Krew I | Idv 8 Z | IdV 8 Z | Id $\forall 0$ OE | KeW 6 | KEN II |  |  | IdV 8 \％ | KrW I | Idv 9Z |  |
| $\stackrel{\text { Id }}{ } \mathrm{V}$ SZ | Idv $\downarrow$ ¢ | Idv Ez | $\stackrel{\text { Id } V 88}{ }$ | IdV $\varepsilon$ ¢ | Idv \＆ | IdV 0¢ | IdV £ |  | $\stackrel{\text { Id } V \text { \＆}}{ }$ | ${ }^{\text {Id }}$ V \＆ | Idv $¢$ ¢ |  |
| KeW I | KeW Z | IdV 92 | KEW Z | KeW $\dagger$ | KıW 8 | KEW 6 | KEW \＆ |  | Kew I | KeJ Z | $\stackrel{\text { Id }}{ } \stackrel{0}{ }$ |  |
| KeW 8 | KeW 8 | Kew Z | Kew 6I | KeW S | Kew 0I | Kew EI | KEW $\downarrow$ |  | Kew 0I | Ked 9 | KEW 6 |  |
| KEW S | Kew E | IdV 0¢ | － ad V 92 | KbW E | Ken 01 | Sen 01 | ${ }^{\text {ad }} \mathrm{V} 0 \mathrm{E}$ |  | KEW 9 | IdV 6 Z | KEW S |  |
| Kew E | Kew $\dagger$ | IdV $0 \varepsilon$ | Kew Z | Ked S | Kew ZI | KeW 8 | Kew I |  | KeW S | KEN E | Kew S |  |
| Id V LZ | Id $\forall$ LZ | Idv $\varepsilon \varepsilon$ |  | Idv 62 | KEW t | Kew t | IdV 0 ¢ |  | IdV SZ | $\stackrel{\text { Id }}{\text { V }} \downarrow$ ¢ | ${ }^{\text {IdV }} \mathrm{V} 9 \mathrm{Z}$ |  |
| KEW \＆ | Kew t | IdV 0Z | KeW I | KeW II | KrW E | Kew II | Kew 8 |  | KeW S | KeW S | KとW | $\mathrm{chased}^{\text {unaqi }} 10 \mathrm{~N}$ |
| Idv 62 | Idv $6 Z$ | Id $\forall 97$ | Kew Z | Id F 0 E | Keja E | $\mathrm{Id} \forall 0 \mathrm{O}$ | ${ }^{\text {Id }} \mathrm{V} 82$ |  | Id $V 82$ | ${ }^{1} \mathrm{~d} \forall \angle L$ | adv $\angle 2$ |  |
| Kew 6 | Kew S | Kew I | IdV6Z | IdV62 | KrN 6 | Kew 01 | KEW 8 |  | Kew 0I | Kew S | KeW t |  |
| OnV ${ }^{\text {a }}$－ | ว8¢лวлV | 01 u0！oxy | 6 40！89\％ | 8 40！ōว |  | $9 \mathrm{u} 0 \underline{80} \mathrm{~d}$ | ¢ u0！83\％ | \％uoisor | $\mathcal{E}$ u0l ${ }^{\text {Bod }}$ | \％40！${ }^{\text {82］}}$ | I 40！83） | soloadS |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

## Seasonality and Advance

Species Seasonality Advance
Region Reported vs 1987-2006 (Days)
$1 \quad 91 \quad-1.43 \quad-2.94$
$292-2.17 \quad-3.83$
$3 \quad 90 \quad-2.32 \quad-3.68$
4
$5 \quad 93$
-0.93
-0.44
$6 \quad 79$
-3.06
5.42
$7 \quad 9$
91
-2.91
6.21
$8 \quad 87$
0.57
3.29
$9 \quad 77$
1.86
0.97
$10 \quad 81 \quad-0.83 \quad-5.00$
With the lack of attempts to estimate arrivals in several Regions, seasonality for those Regions and advance for all Regions may mean little.

Possible number of species $=93$.
Minus = this year earlier than the 20-year average for the Region under Seasonality or this Region's average earlier than the 10-region average for this vear under Advance.


