

However, whereas the tallest adult man would for sure get a lot of attention, the largest Willow Warbler may easily escape attention from humans. In 1911–2008 just above 1.1 million Willow Warblers were ringed in Sweden (The Swedish Bird Ringing Centre, www.nrm.se/rc). Since around 1980, when measuring wing length started to become more common among bird ringers, “only” about 800 000 have been ringed. Finding a Willow Warbler with a wing of 78 mm will surely remain a rare event in Sweden.

References

- Alatalo, R.V. & Lundberg, A. 1986. Heritability and selection on tarsus length in the Pied Flycatcher (*Ficedula hypoleuca*). *Evolution* 40: 574–583.
- Bensch, S., Grahn, M., Müller, N., Gay, L. & Åkesson, S. 2009. Genetic, morphological, and feather isotope variation of migratory willow warblers show gradual divergence in a ring. *Molecular Ecology* 18: 3087–3096.
- Eugster, E. A. & Pescovitz, O. H. 1999. Gigantism. *Journal of Clinical Endocrinology & Metabolism* 84: 4379–4384.
- Hedenström, A. & Pettersson, J. 1984. Lövsångarens *Phylloscopus trochilus* flyttning vid Ottenby. *Vår Fågelvärld* 43: 217–228.
- Ottosson, U., Ottvall, R., Elmberg, J., Green, M., Gustafsson, R., Haas, F., Holmqvist, N., Lindström, Å., Nilsson, L., Svensson, M., Svensson, S. & Tjernberg, M. 2012. *Fåglarna i Sverige – antal och förekomst*. SOF, Halmstad.
- Pettersson, J. & Hasselquist, D. 1985. Fat deposition and migration capacity of Robins *Erithacus rubecula* and Goldcrests *Regulus regulus* at Ottenby, Sweden. *Ring. & Migr.* 6: 66–76.
- Sokal, R.R. & Rohlf, F.J. 1995. *Biometry: The principles and practice of statistics in biological research*. 3rd. edition. W. H. Freeman & co, New York.
- Svensson, L. 1992. *Identification Guide to European Passerines*. 4th edition, Stockholm.
- Tiainen, J. 1983. Sexual differences and termination of growth of young Willow Warblers *Phylloscopus trochilus*. *Vogelwarte* 32: 40–45, 1983
- Williamson, K. 1976. *Identification for Ringers 2. The Genus Phylloscopus*. British Trust for Ornithology.

Sammanfattning

En stor lövsångare fångades nära Simrishamn i Skåne den 13 maj 2010. Den hade vinglängd 78 mm, stjärtlängd 60 mm, tarslängd 23,5 mm, fettklass 3 (på en skala 0–6) och vägde 10,8 g (Figur 1 & 2). Fågeln var med största sannolikhet en hane av rasen *acredula*, vilken häckar i norra Sverige. Både vinge och stjärt var betydligt längre än någon lövsångare som vi tidigare fångat (max 75,5 mm respektive 57,5 mm på 452 hanar i norra Skandinavien under häckningstid). Fågeln var drygt 5 standardavvikelse större än medelvärdet och för en

gångse normalfördelning skall det bara finnas en sådan fågel på 4,5 miljoner individer. Rent statistiskt kan vår fågel ha varit den enskilt största nordliga hanen i den svenska populationen, även om det inte kan uteslutas att fågelns storlek berodde på någon slags defekt. Motsvarande avvikande storlek skulle bland svenska män motsvaras av en kroppslängd på 215,4 cm, vilket är nära den längsta kända människan i Sverige just nu (217 cm).

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Willow Warbler *Phylloscopus trochilus* nesting in a juniper during a peak lemming year

Lövsångare Phylloscopus trochilus häckar uppe i en enbuske under ett lämmelår

KEITH W. LARSON & SIEGLINDE KUNDISCH

Here we would like to report an unusual nest location for a willow warbler *Phylloscopus trochilus*. These birds usually build a well concealed ground nest in the vegetation at the base of trees, shrubs, or grass tussocks (Cramp & Brooks 1992). Breeding studies most typically report nests on level ground, on slopes, and on the side of banks or ditches (Kuuisto 1941, Lapshin 1976, Schönfeld 1982, Arvidsson & Nilsson 1983, Danilov et al. 1984, Cramp & Brooks 1992). Despite being abundant across most of their large breeding range and extensively studied during the breeding season, very few nests are found above the ground. In these cases, nests were reported up to 4.8 meters above ground primarily on slopes, crevices, and banks, and few in bushes and trees ground (Payne 1896, Arundel 1917, Bolam 1918, von Haartman 1969, Arheimer & Enemar 1974, Schönfeld 1982, Hogstad 1985).

On 4 June, 2011, approximately 2 km from Ljungdalen, Sweden (62.8° N 12.7° E), a female willow warbler was located carrying moose hair as nest material. The nest was located approximately



Figure 1. Willow warbler nest in juniper bush. Photograph taken by Keith W. Larson.
Lövsångarbo i en enbuske.

40 cm off the ground in the branches of a one meter tall juniper *Juniperus communis*. The nest was constructed of grass, moss, small twigs, and lined with feathers, moose hair, and leaves (Figure 1). The nest resembled other typical grass domed willow warbler nests with a small entrance hole in the side. The nest contained six eggs. Of the 53 nests located in our two-year study, this was the only one found off the ground. The nest was located within 20 meters of the Ljungan River along its floodplain. Three separate flooding events caused by intense rains and spring run-off from the surrounding mountains left standing water in low depressions within two meters of the nest site. The flooding occurred during the period of territory establishment, pair formation, and nest building.

Although the periodic flooding may be the impetus for building the nest off the ground, 2011 also represented a peak Norwegian lemming *Lemmus lemmus*, northern vole *Microtus oeconomus* and red-backed vole *Clethrionomys glareolus* year. During three previous years of our research, lemmings and voles were rarely encountered. In 2011,

we counted 96 lemming mortalities along a 10 km road transect between Storsjö and Ljungdalen during the same period as the discovery of the above ground nest. In another peak lemming year (1974) researchers in Ammarnäs, Sweden, discovered a willow warbler nest two meters above ground in top of a broken tree (Arheimer & Enemar 1974). Further, in another peak lemming year in central Norway, willow warbler nesting success was higher for individuals with nest off the ground (Hogstad 1985). In this study, five of the nine ground nests and none of the four nests in the bushes or trees were predated (Hogstad 1985). Although lemmings are not known nest predators, peak lemming years may result in increases of meso-predators such as red squirrels *Sciurus vulgaris*, weasels *Mustela ermine* and red foxes *Vulpes vulpes* known to predate ground nesting birds (Arheimer & Enemar 1974, Hogstad 1985, Forstmeier & Weiss 2004).

References

- Arheimer, O. & Enemar, A. 1974. Några fågelarters boplatser under hög smågnagartäthet i fjällbjörkskog. *Fauna och Flora* 69: 153–164.
- Arundel, W.B. 1917. Breeding habits of Willow-Warbler and nesting sites at considerable heights from ground. *British Birds* 11: 88–92.
- Arvidson, B. & Nilsson, L. 1983. Breeding biology of Willow Warbler, *Phylloscopus trochilus* in Swedish Lapland. *Vår Fågelvärld* 42: 81–88.
- Bolam, G. 1918. Unusual nesting sites of Willow Wren and Wood Warbler. *The Vasculum* 4.
- Cramp, S. & Brooks, D.J. 1992. *The Birds of the Western Palearctic. 6. Warblers*. Oxford University Press, Oxford, United Kingdom.
- Danilov, N.N., Ryzhanovsky, V.N. & Ryabitsev, V.K. 1984. *The birds of Yamal*. Nauka, Moscow.
- Forstmeier, W. & Weiss, I. 2004. Adaptive plasticity in nest-site selection in response to changing predation risk. *Oikos* 104: 487–499.
- Hogstad, O. 1985. Improved breeding success of willow warblers *Phylloscopus trochilus* nesting above the ground during a peak year of small rodents. *Fauna Norvegica, Series C* 8: 119.
- Kuusisto, P. 1941. Studien über die Ökologie und Tagesrhythmik von *Phylloscopus trochilus acredula* (L.): mit besonderer Berücksichtigung der Brutbiologie. *Acta Zoologica Fennica* 31: 1–120.
- Lapshin, N.V. 1976. Breeding biology of the Willow Warbler in southern Karelia. In: *Ecology of Birds and Mammals of north-western USSR* (E. V. Invanter, ed), pp. 32–39. Petrozavodsk.
- Payne, J.W. 1896. Abnormal Nesting of the Willow Wren [*Phylloscopus trochilus*]. *The Zoologist* 20: 102.
- Schönfeld, M. 1982. *Der Fitislaubsänger: Phylloscopus trochilus*. Ziemsen, Wittenberg Lutherstadt.
- von Haartman, L. 1969. The nesting habits of Finnish birds, I: Passeriformes. *Societas scientiarum Fennica Commentationes biologicae* 32: 110–114.

Sammanfattning

Den 4 juni 2011 påträffade vi nära Ljungdalen en lövsångarhona som höll på att bygga bo ungefär 40 cm över markytan i en buske som var ungefär en meter hög. Boet bestod av gräs, mossa och små kvistar. Det var inrett med fjädrar, älgghår och löv. Det liknade andra lövsångarbons med tak över och ingångshål från sidan. Men placeringen uppe i en buske avvek från det normala, som är att lägga boet på marken. Bon som placerats ovan marken har dock rapporterats vid ett fåtal tillfällen tidigare och olika orsaker till detta har diskuterats. I vårt fall kan en anledning ha varit tre översvämnningar av Ljungan under tiden för reviretableringen, parbildningen och bobyggandet. De resulterade i kvarstående vatten intill två meter från boet. En annan tänkbar orsak, som föreslagits i samband med tidigare fynd av högt placerade lövsångarbons, är effekter av hög smågnagarförekomst. Och just 2011 var ett lämmel- och sorkår i vårt undersökningsområde. Smågnagarna är visserligen inte kända som bopredatorer, men effekten kan vara indirekt genom ökad förekomst av gnagarpredatorer.

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