

Migrating and wintering birds feeding on berries of Arabian Boxthorn *Lycium shawii* bushes in Kuwait

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The Arabian Boxthorn *Lycium shawii* is widespread in the deserts of Arabia. It flowers and produces its berries autumn through spring, coinciding with the passage of wintering and migrating birds. The berries are small, juicy and sweet. I have observed and report here on various bird species feeding on the berries especially during spring migration when the bushes are full of fruit. This bush not only provides habitat, shelter and food in terms of red berries, but it also shelters insects, which become a source of protein for the birds. The Arabian Boxthorn should be protected in its own right and for the conservation of birds.

Dickson (1955) wrote of *L. shawii*, "Berries of this plant are not poisonous. The berries were eaten by Flt. Lt. Stevenson when stranded for five days without food or water at Um Kasr in July 1941 and did him no harm". I have tasted them for many years; their taste is similar to a sweet tomato, not surprisingly as both tomato and *L. shawii* belong to the Solanaceae. Although a *L. shawii* berry tastes sweet in the beginning, at the end it tastes salty which puts one off consuming more.

The genus *Lycium* is distributed worldwide and comprises c70 species (Fukuda 2001) though 96 species are listed on the International Organization for Plant Information website (www.bgbm.fu-berlin.de). In Kuwait only *L. shawii* occurs (Boulos & Al-Dosari 1994) whereas in Saudi Arabia two species are present: *L. shawii*, which is widespread, and *L. dasystemum*, which is very rare (Migahid 1989, Mandaville 1990, Collenette 1999). Both flower in winter (pers obs), although *L. dasystemum* is reported to flower June–August in China (www.efloras.org). *L. shawii* is a deciduous bush shedding all its leaves by June (Plate 1). It is 1–2 m high and usually grows in groups of 5–20 in open desert or in depressions between hills and along coastal areas. It starts to flower in Kuwait in September (Plate 2), before any drop of rain, when the temperature drops slightly from the highs of June–August and produces its red berries by November (pers obs, Plate 3). Heavily grazed Arabian Boxthorn bushes (see Plate 4) are full of berries in November (Plate 3). Arabian Boxthorns protected from grazing, such as those in nature reserves, continue flowering and growing without producing fruit until February when they start to produce berries and continue doing so until the end of May. The berries are 3–4 mm in diameter and contain about five tiny seeds.

I observed the following species taking and feeding on berries of *Lycium shawii* in Kuwait (or nearby in Saudi Arabia): Turkestan Shrike *Lanius phoenicuroides* (Plate 5), Mauryan Grey Shrike *Lanius lahotra pallidirostris* (Plate 6), Woodchat Shrike *Lanius senator* (Plate 7), Hypocolius *Hypocolius ampelinus* (Plates 8, 9), White-eared Bulbul *Pycnonotus leucogenys leucotis* (Plate 10), Eurasian Blackcap *Sylvia atricapilla* (Plate 11), Lesser Whitethroat *Sylvia curruca* (Plate 12), Ménétries's Warbler *Sylvia mystacea* (Plate 13), Common Rock Thrush *Monticola saxatilis* (Plate 14) and House Sparrow *Passer domesticus* (Plate 15). Eastern Orphean Warbler *Sylvia crassirostris* (Plate 16), Common Whitethroat *Sylvia communis* (Plate 17) and Rufous-tailed Scrub Robin *Cercotrichas galactotes* (Plate 18) were photographed feeding on *Lycium shawii* berries in Kuwait by Rashed Al-Hajji.

BWPi (2006) gave the following information. Sand Partridge *Ammoperdix heyi* took *L. shawii* berries in Oman. Arabian Babbler *Turdoides squamiceps* was reported to take berries of *Ochradenus*, *Lycium*, and *Nitraria*. Both Lesser Whitethroat and Asian Desert



Plate 1. *Lycium shawii* bush, Sabah Al-Ahmad natural reserve, Kuwait, 27 August 2013. The bush is leafless and appears dead. © A Al-Sirhan



Plate 2. *Lycium shawii* producing flowers in autumn, Sabah Al-Ahmad natural reserve, Kuwait, 16 September 2014. © A Al-Sirhan



Plate 3. *Lycium shawii* bush fruiting in November, Subiya, Kuwait, 30 November 2014. © A Al-Sirhan



Plate 4. Arabian Camels *Camelus dromedarius* browsing on *Lycium shawii* bushes at Subiya, Kuwait, 10 February 2008. © A Al-Sirhan



Plate 5. Turkestan Shrike *Lanius phoenicuroides* with *Lycium shawii* berry, Khiran, Kuwait, 23 March 2014. © A Al-Sirhan



Plate 6. Mauryan Grey Shrike *Lanius lahotra pallidirostris* with *Lycium shawii* berry, Hafr Al-Batin, Saudi Arabia, 24 March 2012. © A Al-Sirhan



Plate 7. Woodchat Shrike *Lanius senator* with *Lycium shawii* berry, Khiran, Kuwait, 15 March 2014. © A Al-Sirhan



Plate 8. Hypocolius *Hypocolius ampelinus* with *Lycium shawii* berry, Khiran, Kuwait, 28 March 2014. © A Al-Sirhan



Plate 9. Hypocolius *Hypocolius ampelinus* with *Lycium shawii* berry, Khiran, Kuwait, 25 March 2014. © A Al-Sirhan



Plate 10. White-eared Bulbul *Pycnonotus leucogenys leucotis* with *Lycium shawii* berry, Khiran, Kuwait, 28 March 2014. © A Al-Sirhan



Plate 11. Eurasian Blackcap *Sylvia atricapilla* with *Lycium shawii* berry, Khiran, Kuwait, 28 March 2014. © A Al-Sirhan



Plate 12. Lesser Whitethroat *Sylvia curruca* with *Lycium shawii* berry, Khiran, Kuwait, 25 March 2014. © A Al-Sirhan



Plate 13. Ménétries's Warbler *Sylvia mystacea*, Khiran, Kuwait, 15 March 2014. The bird has a berry but the berry is hidden from view. © A Al-Sirhan



Plate 14. Common Rock Thrush *Monticola saxatilis* with *Lycium shawii* berry, Khiran, Kuwait, 25 March 2014. © A Al-Sirhan



Plate 15. House Sparrow *Passer domesticus* with *Lycium shawii* berry, Khiran, Kuwait, 28 March 2014. © A Al-Sirhan



Plate 16. Eastern Orphee Warbler *Sylvia crassirostris* with *Lycium shawii* berry, Khiran, Kuwait, 2 March 2013. © R Al-Hajji



Plate 17. Common Whitethroat *Sylvia communis* with *Lycium shawii* berry, Khiran, Kuwait, 30 March 2013. © R Al-Hajji



Plate 18. Rufous-tailed Scrub Robin *Cercotrichas galactotes* with *Lycium shawii* berry, Khiran, Kuwait, 9 April 2011. © R Al-Hajji



Plate 19. Purple Sunbird *Cinnyris asiaticus*, feeding on nectar of *Lycium shawii* flower, Subiya, Kuwait, 12 January 2008. © A Al-Sirhan

Warbler *Sylvia nana* took *L. shawii* berries at At Ta'if, Saudi Arabia. Ménétries's Warbler fed on many *Lycium* berries there, November–April. Arabian Warbler *Sylvia leucomelaena* has been reported taking berries of *L. shawii* and *Nitraria retusa* and a Blackstart *Oenanthe melanura* ate a *L. shawii* berry in eastern Saudi Arabia. Jennings (2010) reported that Common Wood Pigeon *Columba palumbus* took fruit of *L. shawii* in Oman.

The above records concern berries. On 5 January 2008 I observed a vagrant Purple Sunbird *Cinnyris asiaticus* feeding on *L. shawii* flower nectar. The nectar was its main source of food as it fed continuously on nectar for just over a month (Plate 19). However, the sunbird disappeared a short while after a flock of camels 'invaded' the bushes (Plate 4).

In Kuwait, Arabian Boxthorn sheds its leaves by June and appears lifeless (Plate 1). In September flower buds and leaves begin to appear simultaneously, the flowers appearing before fully-grown leaves appear (pers obs). In Arabia camels graze on the young shoots and flowers preventing any further growth and reducing the plant's size by chewing terminal branches. *Lycium shawii* bushes have their own unique 'ecosystem'. Windblown sand accumulates around the bushes, traps rain water and becomes a rich habitat for the growth of annual plants, a habitat for rodents and reptiles to burrow into and beetles and small lizards can shelter inside and around. Shrikes impale their prey onto the spines of *L. shawii* including lizards, birds and rodents. In September, before autumn rain, no annuals grow but the *L. shawii* branches grow leaves and flowers and thus *L. shawii* becomes a magnet for browsing livestock.

Equipped with navigation equipment, mobile homes and water tankers, camel herders have easy access to *L. shawii* bushes, allowing further devastation of the desert ecosystem. With the advent of oil, camel herding became a pastime or hobby for rich Arabs. To many

Arab individuals, it reminds them of how their ancestors lived in the past. Many retirees start this hobby and venture into the desert with a huge flock/herd of sheep and camels. This hobby has increased the camel population to far more than I believe existed before, thus putting more pressure on this vulnerable ecosystem. Government authorities have no official numbers on current and past camel populations and seem to be unaware of their devastating effect on desert land. Humans have intervened in the ecosystem and sided with camels against other living things. Camels in Kuwait have no economic value as neither their meat nor their milk has any commercial value nowadays. For the conservation of birds, we need to conserve the Arabian Boxthorn by controlling numbers of grazing animals.

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