Status and distribution of the invasive Common Myna *Acridotheres tristis* in the West Bank, Palestine

ELIAS N. HANDAL & MAZIN B. QUMSIYEH

Summary: The invasive Common Myna *Acridotheres tristis* was first reported as an escape and breeding in one locality in the eastern Mediterranean region in 1997. In the 23 years since it has quickly spread to other regions. Here we report on localities it reached in the West Bank. From the spread of records and from earlier observations we conclude that this invasive species has spread along human communities from the West Coast to the Jerusalem area and then north, south and east, reaching the Jordan valley and then on into Jordan. Its distribution remains almost entirely restricted to areas of human habitation.

INTRODUCTION

A total of 551 bird have been recorded in the region of Palestine (Meiri *et al*. 2019) of which 373 in the West Bank and Gaza Strip (Awad *et al* 2015). Nine of those are invasive bird species with four occurring in the West Bank: Indian Silverbill *Lonchura malabarica*, Common Myna *Acridotheres tristis,* Monk Parakeet *Myiopsitta monachus* and Rose-ringed Parakeet *Pisttacula krameri* (Shirihai *et al* 1996, Roll *et al* 2008, Awad *et al* 2015, Meiri *et al* 2019).

Common Myna *Acridotheres tristis* is one of the most invasive species in the world (Birdlife international 2000, Lowe *et al* 2000). It has invaded many areas in world including South Africa, Australia, the Middle East, Madagascar, New Zealand, and many islands in the Pacific and Atlantic oceans (Cohen *et al* 2019). Here we report the spread of this species in the West Bank and reflect on conservation issues for indigenous animals raised by the rapid spread of this species from its first human introduction in 1997 in the area of Tel Aviv (Holzapfel *et al* 2006).

METHODS

A study was undertaken on the distribution of the Common Myna (Plate 1) in the West Bank. All observation data were collected by the Palestine Museum of Natural History team using direct observations during our field trips to different areas in the West Bank. All location data were collected using GPS.

RESULTS

We recorded Common Myna in a total of 71 locations from 2015 to 2019 in the West Bank (Figure 1). Six years ago, several localities were visited and recorded no presence of the species. These were localities around the edges of the distribution shown in Figure 1 and included Tubas, Wadi Qalt, Jericho, Yatta, Wadi Quff, and Beit Sahour.

From the map and the history of observations we have made in the past six years, we suggest that the spread of this bird has occurred slowly in the West Bank, starting from Jerusalem then spreading north and south. Figure 1 shows that the species is restricted almost entirely to areas of human habitation, mirroring that distribution of House Sparrow *Passer domesticus*.

We documented the presence of Common Myna in 71 localities, usually in groups of three to 15 individuals. We recorded them eating both plants and even animal material; in one instance we observed them feeding on eggs of other bird species and in another attacking the green lizard *Phoenicolacerta laevis*. We also observed them successfully competing with Jackdaws *Corvus monedula* for road-kills and food from trash dumps.

Plate 1. Common Myna *Acridotheres tristis*. © *Elias N Handal*

DISCUSSION

The Common Myna was first recorded breeding in the wild in our region in 1997 after a group of birds escaped from the Park Hayarkon area in Tel Aviv (Holzapfel *et al* 2006). In the 23 years since then the species has spread significantly, first in coastal regions and then up the hills and finally reaching areas of the Jordan valley. We recorded it in 71 localities all over the Palestinian territories and its distribution is continuing to expand but seems to be restricted to human habitation. Similar observations were made inside the Green Line (1948 areas of Palestine, currently the state of Israel) (Cohen & Dor 2019). This species was first recorded in Jordan in 2003 and 2004 (Khoury *et al* 2006) and by 2016 had become a widespread colonizer (Khoury & Alshamlih 2016). While our data and those of others show it mostly associating with human habitations, its impact on the environment cannot be underestimated. Such invasive birds can act as reservoirs for human and wildlife diseases (Jalas & Tavalla 2018, Mori *et al* 2018). Another issue to consider is how much climate change and other human induced environmental damage helps in the spread of these invasive species (Bellard *et al* 2013, Mainka & Howard 2010, Saeed & Qumsiyeh 2020).

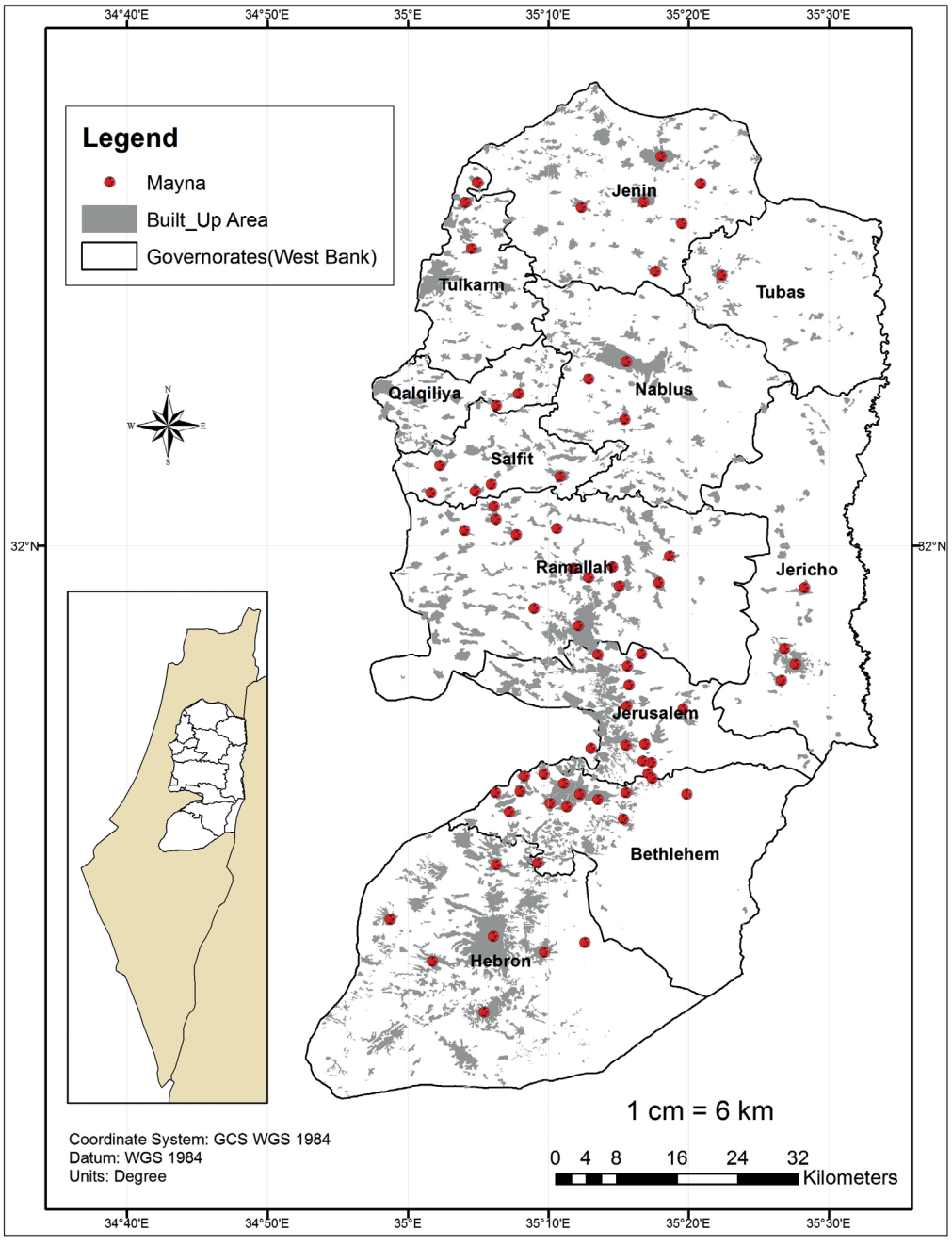

Figure 1. Distribution of Common Myna in the West Bank, Palestine.

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Elias N Handal, Museum Zoologist, Palestine Institute for Biodiversity and Sustainability at Bethlehem University, Bethlehem Palestine. eliashandal93@gmail.com

Mazin B Qumsiyeh, Director of the Palestine Institute for Biodiversity and Sustainability at Bethlehem University, Bethlehem Palestine. mazin@qumsiyeh.org