

An aerial photograph of a rural landscape. The scene is dominated by green agricultural fields, many of which are separated by dark, linear hedgerows. A road or path winds through the fields, and there are some buildings visible in the lower-left quadrant. The overall impression is of a well-maintained, traditional farming landscape.

Farm hedgerows: barriers & connectors

The Hedgerow Appraisal System

Neil Foulkes and Janice Fuller

Hedgerows and native woodland



Value of hedgerows



- Archaeological
- Social/ cultural
 - Land-use history
 - Landscape feature
 - Local character
- Agricultural- barriers
- Ecological- connectors

Ecological value of hedgerows

- Mini-woodlands
- Wildlife habitat/ corridors/ refuges
- Widespread natural habitat
- Ecosystem services



Hedgerow loss



Hedgerows in Ireland

- Hedgerows cover c. 1.5% of land area
- Much of network >100 years old
- **What do we know about the quality and condition of our hedgerow resource?**





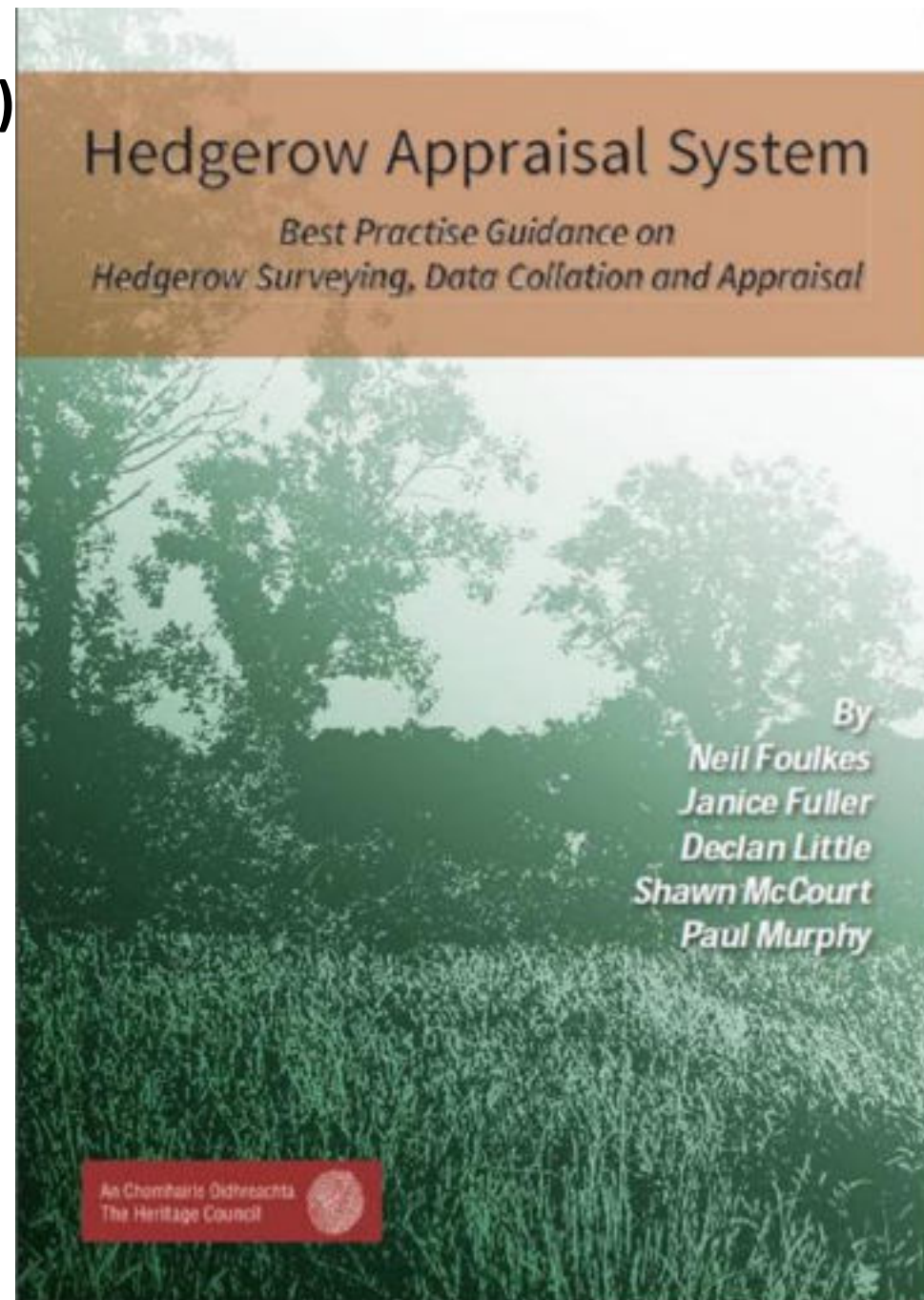
Why do we need a Hedgerow Appraisal System?

- Effective conservation strategies need to prioritise hedgerow networks on the basis of agricultural, ecological, environmental, heritage and landscape value
 - Systematic assessment
 - Appropriate management



Hedgerow Appraisal System (HAS)

- Hedge Laying Association of Ireland and Woodlands of Ireland with funding from Heritage Council
- Three elements
 1. Standard recording methodology,
 2. National hedgerow database (NBDC)
 3. Method for data appraisal



1. Standard recording methodology for hedgerows

- Based on Foulkes and Murray (2006)
- Records
 - extent
 - floristic composition
 - context
 - physical structure
 - condition
 - management status



Floristic composition

- Tree layer
- Shrub layer
- Ground flora



Structure/ Condition

- Hedgerow profile
- Height
- % of gaps
- Base structure
- Vigour etc. etc.



Context



- Adjacent land-use
- History
- Habitat linkages
- Designated sites etc. etc.



2. National hedgerow database

- Baseline data
- Hosted by the National Biodiversity Data Centre
- Standardised and open access



3. Data appraisal

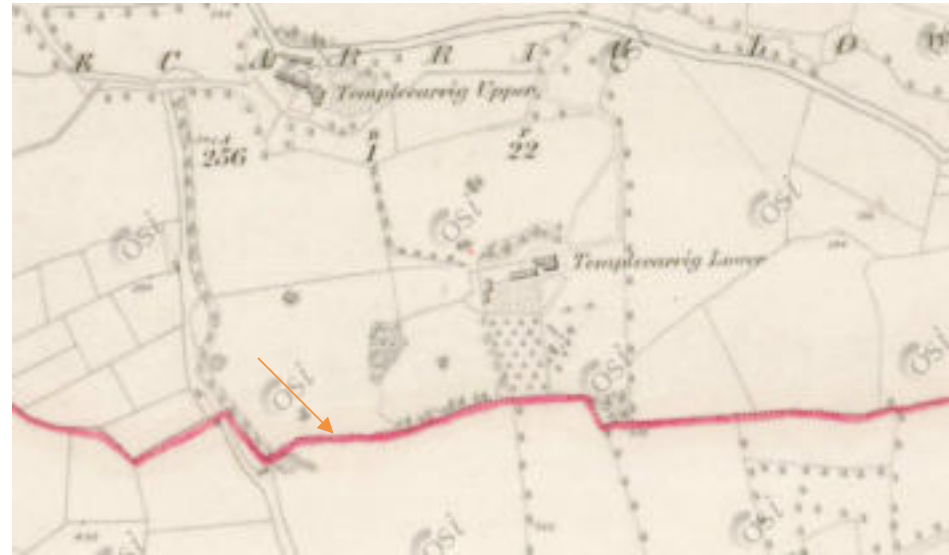
- Mechanism to identify hedgerows of high ecological, historical and landscape significance and to assess the condition status of individual hedgerows

➤ Heritage hedgerows



3. Data appraisal

- Determines hedgerow significance
- Based on ranking the significance of hedges (Scale 0-4) in five categories
 1. Historical
 2. Species diversity including ground flora
 3. Structure, construction & associated features
 4. Habitat connectivity
 5. Landscape context



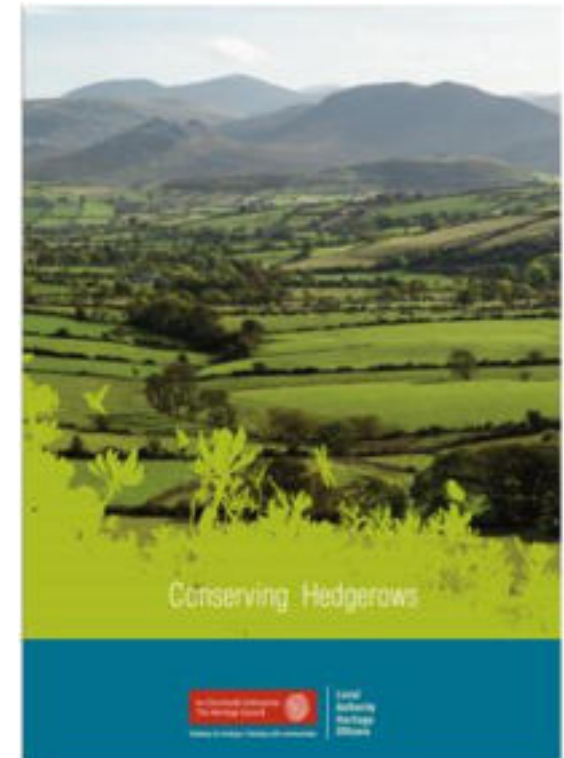
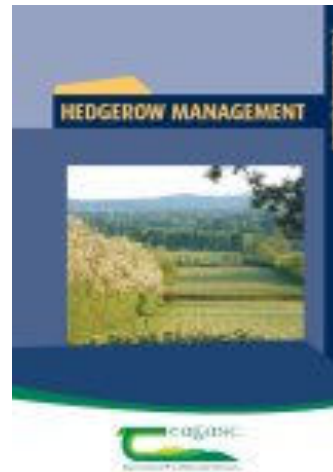
HAS areas for improvement

- Records current status, no assessment of potential
 - Stronger scientific basis for some of the category thresholds
- Work in progress!



Applications

- Baseline data
- Research
 - Best practice management
- Inform development of conservation strategies
- Planning policy
- **Agri-Environment schemes**





Native hedgerows



- Important ecological function
- Need for appropriate conservation & management strategies
- Hedgerow Appraisal System- huge potential